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# CANADA AND NATO: AN ALLIANCE FORGED IN STRENGTH AND RELIABILITY

## Report of the Standing Committee on National Defence

**Stephen Fuhr, Chair**

**JUNE 2018**
**42nd PARLIAMENT, 1st SESSION**

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# CANADA AND NATO: AN ALLIANCE FORGED IN STRENGTH AND RELIABILITY

## Report of the Standing Committee on National Defence

**Stephen Fuhr**
**Chair**

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**Reports from committees presented to the House of Commons**

Presenting a report to the House is the way a committee makes public its findings and recommendations on a particular topic. Substantive reports on a subject-matter study usually contain a synopsis of the testimony heard, the recommendations made by the committee, as well as the reasons for those recommendations.

To assist the reader:
A list of abbreviations used in this report is available on page ix

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# THE STANDING COMMITTEE ON NATIONAL DEFENCE

has the honour to present its

**TENTH REPORT**

Pursuant to its mandate under Standing Order 108(2), the Committee has studied Canada's Involvement in NATO and has agreed to report the following:

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# LIST OF ACRONYMS

| | |
|---|---|
| AOPS | Arctic/Offshore Patrol Ship |
| AWACS | Airborne Warning and Control System |
| BMD | Ballistic Missile Defence |
| CAF | Canadian Armed Forces |
| CAST | Canadian Air/Sea Transportable |
| CFTS | Contracted Flying Training and Support |
| CNAD | Conference of National Armaments Directors |
| DND | Department of National Defence |
| EFP | Enhance Forward Presence |
| EU | European Union |
| GDP | Gross Domestic Product |
| GIUK | Greenland-Iceland-United Kingdom |
| ICBM | Intercontinental Ballistic Missile |
| IISS | International Institute for Strategic Studies |
| INF | Intermediate-Range Nuclear Forces Treaty |
| ISIS | Islamic State of Iraq and Syria (also known as Daesh) |
| JCPOA | Joint Comprehensive Plan of Action |
| NATEX | National Technical Expert |
| NATO | North Atlantic Treaty Organization |
| NCIA | NATO Communications and Information Agency |

| | |
|---|---|
| NDC | NATO Defense College |
| NDDN | House of Commons Standing Committee on National Defence |
| NFTC | NATO Flying Training in Canada |
| NIAG | NATO Industrial Advisory Group |
| NORAD | North American Aerospace Defense Command |
| NSPA | NATO Support and Procurement Agency |
| NPT | Non-Proliferation of Nuclear Weapons Treaty |
| OSCE | Organization for Security and Co-operation in Europe |
| PESCO | Permanent Structure Cooperation on Security and Defence |
| RCAF | Royal Canadian Air Force |
| RCN | Royal Canadian Navy |
| SIPRI | Stockholm International Peace Research Institute |
| SLBM | Submarine-Launched Ballistic Missile |
| TFP | Tailored Forward Presence |
| UK | United Kingdom |
| UN | United Nations |
| UNCLOS | United Nations Convention on the Law of the Sea |
| UNSCR | United Nations Security Council Resolution |
| U of T | University of Toronto |
| US | United States |

# SUMMARY

Founded in 1949, the North Atlantic Treaty Organization (NATO) has been the cornerstone of transatlantic security for almost 70 years. In today's highly complex and unpredictable international security environment, the NATO political, military and economic alliance remains important, and continues to provide its 29 member states, which include Canada, with collective security and stability.

As a founding member of NATO, Canada has been a reliable and strong member of NATO for almost seven decades, and remains committed to NATO and the collective security of NATO countries. Canada and NATO have a mutually beneficial relationship: Canada has much to gain through its membership in NATO, and NATO benefits from the contributions that Canada has made and continues to make. Witnesses repeatedly told the Committee that Canada matters to NATO, and that NATO matters to Canada. They held the view that Canada is a well-respected ally within NATO. They emphasized Canada's long history within NATO as a founding member and its evolution within NATO since 1949. As well, they highlighted Canada's leadership within NATO and the high value of its contributions to NATO, and its programs and its operations over the years. Canada, for example, has contributed to every NATO mission since 1949, and continues to provide valuable leadership and contributions to NATO's operations, as evident from its decision to lead NATO's multinational enhanced Forward Presence (eFP) battlegroup in Latvia. Witnesses also spoke about the recognized professionalism and the high-level of interoperability of the Canadian Armed Forces (CAF) and the degree to which they are respected within NATO.

However, in order to continue to be relevant today, and into the future, NATO and its member countries must remain vigilant in responding and adapting to new threats and rapid changes in the international security environment. In recent years, the resurgence of Russia as an aggressive and revisionist military power, for example, has prompted NATO's largest reinforcement of collective defence and deterrence since the end of the Cold War. At the same time, the persistent threat from transnational terrorist groups has compelled NATO to enhance its efforts to project stability in conflict-prone regions throughout the Middle East and North Africa region.

The Committee repeatedly heard that Canada could do more to support NATO, its member countries and its partner countries. Witnesses told the Committee that the Canadian public must be better informed about global threats and the importance of NATO in being able to defend against them. Witnesses advocated increased public education about the threats that Canada faces, and about national defence issues and

NATO's value in protecting our security and prosperity. Witnesses also suggested that Canada should take on a leadership role within NATO on such issues as promoting the United Nation's Women, Peace and Security agenda, nuclear disarmament, security sector reform and Arctic defence. They also proposed that the Canadian defence industry should be provided with more support to facilitate its participation in NATO's joint procurement projects. Witnesses pointed to improving Canada's defence procurement process, allocating funds for researching and developing new technologies, and investing resources in cyber capabilities as important steps toward improving the CAF's capabilities and – by extension – enhancing Canada's contribution to NATO. In their view, the result would be an increase in Canada's engagement with NATO.

Witnesses underscored that NATO's solidarity is its greatest asset. They noted that NATO has overcome challenges in the past, and must continue to do so in the future. Ultimately, NATO's strength and value lies in the unity and interoperability of its members. At its core, NATO is a values-based alliance, committed to the principles of individual liberty, democracy and the rule of law.

# LIST OF RECOMMENDATIONS

*As a result of their deliberations committees may make recommendations which they include in their reports for the consideration of the House of Commons or the Government. Recommendations related to this study are listed below.*


NATO's Evolution and Response to Global Threats

Recommendation 1

**That the Government of Canada recognize the threat posed to Canada and the values of NATO by states such as Russia, North Korea, Iran and others, and that representatives of the Government of Canada and the Canadian Armed Forces continue to raise issues related to this threat in NATO forums. ..... 102**

Recommendation 2

**That the Government of Canada continue to support Ukraine's reform and democratization efforts that would facilitate its application for NATO membership. ..... 102**

Recommendation 3

**That the Government of Canada support NATO efforts to counter the threat posed by international terrorist groups. ..... 102**

Recommendation 4

**That the Government of Canada closely monitor efforts by the Permanent Structured Cooperation (PESCO) initiative of the European Union and to guard against duplication of efforts to ensure that PESCO does not compete for limited military resources nor undermine NATO operations. ..... 102**

Canada and NATO Operations

Recommendation 5

**That the Government of Canada continue to play a leadership role in NATO's Enhanced Forward Presence in Latvia as part of Canada and NATO's ongoing commitment to democracy and stability in Europe, in view of Russia's invasion and continued occupation of eastern Ukraine and its illegal annexation of Crimea. ..... 102**

Recommendation 6

**That the Government of Canada continue to invest in research and training development, deployment of personnel in operational headquarters (HQ) and NATO HQ positions..... 102**

Canada Matters to NATO

Recommendation 7

**That Canada participate in the NATO Defence Planning Process (NDPP) and complete an annual capability report clearly defining and measuring capability by defence objective, including personnel numbers, readiness training levels, equipment technology levels and interoperability. ..... 103**

Recommendation 8

**That the Government of Canada re-vitalize and re-establish Canada as a leader in military training within the alliance, including NATO Flying Training, military engineering, communications engineering capabilities, and Women, Peace and Security capabilities. ..... 103**

NATO Burden-Sharing and Defence Spending

Recommendation 9

**That the Government of Canada take steps to meet the 2014 Wales Summit target, and advocate to NATO the establishment of a contributions measurement system that goes beyond the 2.0% expenditure on Gross Domestic Product (GDP) metric. Further, that the Government of Canada consider taking into account other quantitative and qualitative considerations to contributions from NATO member states. ..... 103**

Public Outreach, Educational Awareness and Communications Issues

Recommendation 10

**That the Government of Canada engage with colleges, universities, think-tanks, researchers, and industry, to develop an educational platform in addition to supporting the #WeAreNATO campaign and the NATO Association of Canada, to inform Canadians on the history and importance of NATO to Canada's defence policy, in guaranteeing peace and security in the world, and to strengthen our understanding and commitment to this important organization..... 103**

Recommendation 11

**That the Government of Canada and the House of Commons continue to support, invest in and recognize the value of the role of Parliamentarians, including in the NATO Parliamentary Assembly, in Canada`s NATO relationship..... 103**

Recommendation 12

**That the Government of Canada publish an annual report on global threats and national defence. ..... 104**

NATO's Procurement and Defence Industry Issues

Recommendation 13

**That the Government of Canada invest in accountability structures, management frameworks and performance based contracts with strong incentives and disincentives to ensure timely, efficient and effective military procurement, perhaps reviewing the overall government defence procurement structure and considering the establishment of a Department of Defence Procurement to meet NATO capability and burden sharing..... 104**

Recommendation 14

**That the Government of Canada play a more active and engaged role in facilitating Canadian-owned defence companies to compete on and secure NATO procurement contracts. That the Government of Canada also continue to invest in, and support Canada's delegation to the NATO Industrial Advisory Group (NIAG) to ensure that Canada's defence industry understands the value and importance of NATO procurement. ..... 104**

Recommendation 15

**That the Government of Canada increase the number of National Technical Expert (NATEX) positions, with at least one full-time NATEX in the NATO Communications and Information Agency (NCIA) in Brussels, to assist Canadian industry bids on leading edge NATO contracts and to also ensure that no portion of the process of awarding NATO procurement contracts imposes unfair disadvantages on Canadian businesses. ..... 104**

Recommendation 16

**That the Government of Canada endeavour to provide programming for pilot project launches with the Canadian Armed Forces (CAF) where Canadian leading edge technology can fill national defence and security requirements, such as the former Canadian Innovation Commercialization Program (CICP). ..... 104**

NATO Research and Development and Emerging Technologies

Recommendation 17

**That the Government of Canada ensure adequate funds are allotted for research and development in order to adapt to the rapid pace of technological change and the increased prevalence of hybrid warfare. ..... 105**

NATO and Cyber Defence

Recommendation 18

**That the Government of Canada invest further to address our NATO commitment to enhance the electromagnetic pulse and cyber defences of command and control, national infrastructures and networks, and our commitment to the indivisibility of Allied security and collective defence, in accordance with the Enhanced NATO Policy on Cyber Defence adopted in Wales. ..... 105**

NATO and the Arctic

Recommendation 19

**That the Government of Canada take a leading role within NATO to specialize in Arctic defence and security doctrine and capabilities, and enhance NATO's situational awareness in the Arctic, including joint training and military exercises for NATO members in the Canadian Arctic. ..... 105**

NATO and Maritime Security

Recommendation 20

**That the Government of Canada respond to calls for NATO members to increase the quantity and quality of their naval fleets and underwater surveillance capabilities in light of ongoing challenges to NATO members at sea by beginning the process of replacing Canada's Victoria Class submarine fleet with new submarines that have under-ice capabilities and that the CAF increase the size of the fleet in order to enhance our Arctic and North Atlantic defence preparedness. ..... 105**

Nuclear Proliferation and Nuclear Disarmament

Recommendation 21

**That the Government of Canada take a leadership role within NATO in beginning the work necessary for achieving the NATO goal of creating the conditions for a world free of nuclear weapons. That this initiative be undertaken on an urgent basis in view of the increasing threat of nuclear conflict flowing from the renewed risk of nuclear proliferation, the deployment of so-called tactical nuclear weapons, and changes in nuclear doctrines regarding lowering the threshold for first use of nuclear weapons by Russia and the US. ..... 105**

NATO and the Space Domain

Recommendation 22

**That the Government of Canada support NATO efforts to draft a space strategy to include treaties and codes of conduct governing military attacks on space assets and to reduce debris and congestion in space orbits. ..... 106**

Women, Peace, and Security

Recommendation 23

**That the Government of Canada support increased participation of women in NATO by becoming a leader in gender-based operational training; by reporting annually on Canada's progress on Women, Peace and Security within its military; by working with NATO to further develop gender-based policies and procedures; and by hosting an international integrated military and civilian conference on Women, Peace and Security. ..... 106**

Recommendation 24

**That the Government of Canada support the agenda of the NATO Secretary General's Special Representative for Women, Peace, and Security (WPS) and the commitment of additional resources to that agenda including measures to promote increased recruitment of women in peacekeeping operations both domestically and in the militaries of our allies. ..... 106**

NATO's Unity and Interoperability

Recommendation 25

**That the Government of Canada directly engage with NATO members who may have compromised the security, military interoperability, and values of NATO, and help support them in upholding the shared NATO principles of protecting human rights, respecting the rule of law, promoting democracy, and protecting civilian populations. ..... 106**

Canada and NATO Centres of Excellence

Recommendation 26

**That the Government of Canada indicate to the Steering Board of the European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE) that Canada wishes to participate in the Hybrid CoE. ..... 107**

Recommendation 27

**That the Government of Canada establish a NATO Centre of Excellence in the area of security sector reform as this would allow Canada to offer the Alliance a standing capacity for military and police training to be used for conflict prevention and/or successful post-conflict reconstruction efforts. ..... 107**

# CANADA AND NATO: AN ALLIANCE FORGED IN STRENGTH AND RELIABILITY

> "The Parties to this [North Atlantic] Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments. They are determined to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law. They seek to promote stability and well-being in the North Atlantic area. They are resolved to unite their efforts for collective defence and for the preservation of peace and security."[1]
>
> *North Atlantic Treaty*, 1949

## INTRODUCTION

Less than four years after the end of the Second World War, senior representatives of Canada, the United States and 10 Western European countries met in Washington D.C. On 4 April 1949, they signed the *North Atlantic Treaty*,[2] which established the political, military and economic alliance known as the North Atlantic Treaty Organization (NATO).[3] Created in the early stages of the Cold War, NATO was originally developed to defend its North American and Western European members against the threat of the Soviet Union and its satellite states in Eastern Europe. It was established as an alliance based on the common values of democracy, individual liberty and the rule of law, and was committed to the principle of collective defence for the preservation of peace and security. That principle continues to be enshrined in Article 5 of the *North Atlantic Treaty*, which states "that an armed attack against one or more [NATO countries] in Europe or North America shall be considered an attack against them all" and that "each of them, in exercise of the right of individual or collective self-defence recognized by Article 51 of the Charter of the

1 North Atlantic Treaty Organization [NATO], "The North Atlantic Treaty," 4 April 1949.

2 The *North Atlantic Treaty* is also commonly known as the Washington Treaty. See: Ibid.

3 The 12 founding NATO member states in 1949 were: Belgium; Canada; Denmark; France; Iceland; Italy; Luxembourg; the Netherlands; Norway; Portugal; the United Kingdom; and the United States. Another four countries joined NATO before the end of the Cold War in the early 1990s: Greece and Turkey in 1952; Germany in 1955; and Spain in 1982. See: NATO, "Member Countries."

United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area."[4]

The collapse of the Soviet Union and the end of the Cold War in the early 1990s did not mark the end of NATO. On the contrary, NATO expanded and adapted to new and emerging security challenges, thereby demonstrating its continued importance and relevance. NATO reorganized itself and recommitted to peace and stability in Europe, playing a crucial role in the stabilization of Central and Eastern Europe by developing strong partnerships with many countries formerly dominated by the Soviet Union. Many of those countries saw a relationship with NATO as fundamental to their own aspirations for stability, democracy and integration in Europe. These partnerships ultimately led to NATO's enlargement, with the Czech Republic, Hungary and Poland joining NATO in 1999, followed by Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia in 2004, Croatia and Albania in 2009, and Montenegro in 2017. Since the 1990s, NATO's interventions in the Balkans, Afghanistan, Libya, Iraq and elsewhere have also contributed to bringing security and stability along NATO's periphery.[5] Today, NATO remains the cornerstone of transatlantic security, and its 29 member states will be celebrating its 70th anniversary in 2019.[6]

However, despite NATO's achievements and having survived the test of time, member countries face a range of hostile state and non-state actors, new threats, and an unpredictable international security environment. In particular, Russian rearmament and aggression in Georgia in 2008, in Ukraine beginning in 2014, and in other regions over the last decade has prompted NATO to re-focus on collective defence and deterrence, and to strengthen both its capabilities and its flanks in Eastern and Southern Europe. Ongoing crises in the Middle East and North Africa region since 2011 have also generated instability along NATO's southern border. The armed conflicts in Afghanistan, Iraq, Libya, Syria and Yemen have resulted in an unprecedented humanitarian crisis. Millions of men, women and children have been displaced as a result of those violent

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4 For more information on the *North Atlantic Treaty*, see Appendix A. See: NATO, "The North Atlantic Treaty," 4 April 1949.

5 NATO, "A Short History of NATO."

6 The 29 NATO member states and the year in which they joined NATO are: Albania (2009); Belgium (1949); Bulgaria (2004); Canada (1949); Croatia (2009); the Czech Republic (1999); Denmark (1949); Estonia (2004); France (1949); Germany (1955); Greece (1952); Hungary (1999); Iceland (1949); Italy (1949); Latvia (2004); Lithuania (2004); Luxembourg (1949); Montenegro (2017); the Netherlands (1949); Norway (1949); Poland (1999); Portugal (1949); Romania (2004); Slovakia (2004); Slovenia (2004); Spain (1982); Turkey (1952); the United Kingdom (1949); and the United States (1949). See: Ibid.

conflicts, resulting in a massive refugee crisis that NATO allies have had to address. Instability in the Middle East and North Africa region has exposed NATO to complex and diverse threats from state and non-state actors in that region, including threats emanating from terrorism, political, ethnic and religious violent extremism, and transnational criminal activities. These threats have resulted in NATO projecting stability beyond its territory by developing security partnerships and helping to build defence capacity in several like-minded countries in the region.

Concurrently, NATO continues to face and adapt to various other threats, including: terrorism; political, ethnic and religious violent extremism; transnational criminal activities; cyber-attacks; hybrid warfare; the proliferation of ballistic and cruise missile technology; the acquisition and possible use of chemical, biological, radiological and nuclear weapons of mass destruction by state and non-state actors; the rapid emergence of drones and autonomous weapons systems; global power shifts; and the aggressive rhetoric and actions of China, Iran, North Korea and other revisionist regimes worldwide. According to some commentators, the growing number and nature of threats that NATO faces today is unprecedented since the end of the Cold War.[7]

Those threats are emerging at a time when NATO faces internal challenges about the issue of burden sharing, which mostly focuses on how member countries invest financially in their own defence in support of NATO. The emergence of new threats and security challenges has demanded a strong response from NATO, which in turn has put pressure on member countries to spend more on defence and to increase their contributions to NATO. In recent years, the United States and other countries have been pressuring their NATO allies to meet the NATO target of spending 2.0% of their gross domestic product (GDP) on defence, which is the commitment that was made at the 2014 NATO Summit in Wales. Estonia, Greece, the United Kingdom and the United States were the only NATO countries that met the 2.0% of GDP target for defence spending in 2017.[8] The United States, in particular, holds the view that it is bearing an inequitable share of NATO's defence spending, and that its NATO allies should contribute their fair share to the collective defence of the transatlantic region. Although the United States has been asking its NATO allies to increase their defence spending for some time, the current U.S. administration's warning that the United States might re-examine its

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7 House of Commons Standing Committee on National Defence [NDDN], *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck and Lieutenant-General Marquis Hainse); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden and Robert McRae).

8 NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.

commitment to NATO members who fail to meet their commitments is causing worries and uncertainty within NATO.[9]

It is in this context that the House of Commons Standing Committee on National Defence (the Committee) decided to undertake a study of Canada's involvement in NATO, with particular emphasis on what Canada brings to NATO and what NATO brings to Canada. The study includes an investigation of the ways in which the country can remain a strong, reliable and indispensable founding member of what the Royal Military College of Canada's Dr. Walter Dorn, Professor of Defence Studies, has dubbed the "most powerful alliance in the world."[10] The Committee also wanted to examine the security and prosperity benefits that result from the country's membership in NATO.

To that end, between 18 and 23 September 2017, the Committee travelled to NATO Headquarters in Brussels, Belgium, and to Riga, Latvia, in order to gain a better understanding of the situation on the ground, and to assess what more Canada could do to assist NATO. The Committee met with a number of prominent NATO representatives, as well as with Canadian and Latvian government and military officials. While in Latvia, the Committee met Canadian Armed Forces (CAF) personnel deployed on Operation REASSURANCE, which is the CAF's contribution to NATO assurance and deterrence measures in Central and Eastern Europe, and visited the Canadian-led NATO enhance Forward Presence (eFP) multinational battlegroup set up at the Adazi military base near Riga, which is comprised of assets and personnel from seven NATO countries and operates with Latvian forces. It was enlightening for Committee members to see first-hand how Canada's men and women in uniform are leading that multinational NATO battlegroup, and how they train and interoperate with their NATO counterparts. Latvian government and military authorities, in particular, repeatedly expressed their gratitude for both Canada's strong political and military leadership and support for Latvia, and the ways in which Canadian assistance is helping their country feel safer and better protected against Russia aggression.

The Committee held 17 public meetings in Ottawa between 4 October 2017 and 29 March 2018 on the topic of Canada's involvement in NATO; testimony was received from a number of witnesses, including NATO, Canadian and Latvian government and military officials, and various academics and stakeholders. During these meetings, Committee members discussed a number of issues, including: the evolution of the international security environment, particularly the threat posed by Russia and its hybrid

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9 NDDN, *The Canada-U.S. Relationship: Perspectives on Defence, Security, and Trade*, 1st Session, 42nd Parliament, May 2017, pp. 1–5.

10 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

warfare methods, cyber-attacks and disinformation campaigns; the continued importance and relevance of NATO as a political, military and economic alliance, and Canada's contributions to it; NATO's programs, activities, operations, defence spending, and burden-sharing; public outreach, educational awareness and communications; NATO's procurement and defence industrial relations, as well as emerging technologies and NATO's research and development; cyber security; Arctic and maritime security; nuclear disarmament; the space domain; Women, Peace and Security; maintaining NATO's unity and interoperability; and NATO's centres of excellence.

The report is primarily about Canada's involvement in NATO and how it could be strengthened in the near future. The first section provides an overview of the international security environment and global threats to NATO, while the second section examines the ways in which NATO is evolving and adapting to those threats, Canada's current contributions to NATO, and its reputation within the alliance. The third section highlights possible changes that might strengthen the Canada–NATO defence relationship. The final section provides the Committee's concluding remarks and recommendations for the Government of Canada.

Based on the testimony received during this study, as well as publicly available information, the Committee reports the following findings and recommendations to the House of Commons.

## NATO AND THE GLOBAL SECURITY ENVIRONMENT

The global security environment has changed considerably since NATO's founding in 1949. Over the past 69 years, the world has experienced significant shifts in the global balance of power, from the emergence of two global superpowers at the end of the Second World War and competition between them throughout the Cold War, to the rise of the United States as the sole superpower since the 1990s. Today, this global order is being challenged. Increasingly powerful state and non-state actors have emerged, and seek to undermine the world order through conventional and unconventional means.

As Canada's Former Ambassador to NATO Robert McRae remarked to the Committee, "[d]uring the Cold War, the Soviet Union, NATO, and alliance structures were fairly static" and the security environment was relatively predictable.[11] Indeed, the global balance of power was bipolar, with the United States and its NATO allies facing the Soviet Union and its Warsaw Pact allies. This dynamic changed with the collapse of the

11 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

Soviet Union and the end of the Cold War in the early 1990s, and the United States emerged as the world's sole superpower.

However, a wide range of new global threats and challenges have emerged since the end of the Cold War, highlighting the continued relevance of NATO as a political, military and economic alliance. Today, NATO faces an increasingly complex and unpredictable world. Richard Fadden, former National Security Advisor to Prime Minister Stephen Harper and Prime Minister Justin Trudeau, told the Committee that "the threat level we face today is at least as significant as during the Cold War."[12] These threats defy borders and challenge conventional understanding of warfare. This new security environment tests the very foundation on which NATO was built. According to Kerry Buck, Canada's Ambassador to NATO:

> For nearly 70 years, NATO's goal has remained the same: preserve peace and safeguard our collective security. That role is as relevant as ever. Today's security challenges be they Russia's military adventurism, extremism and terrorism in Iraq and Syria, North Korea's nuclear testing, or the increasing use of cyber-attacks are putting the rules-based international order to the test.[13]

### 1. Russia, China and the Global Balance of Power

Over the past decade, Russia and China have expanded and modernized their military, and have demonstrated a willingness to use force to achieve their foreign policy objectives and to challenge the international order. Mr. Fadden told the Committee that Russia and China "don't like the way the world is organized, and they're constantly poking and prodding to try to increase their influence and change the balance of power on the planet."[14]

Russia's ongoing military buildup and destabilization efforts in Eastern Europe are of particular concern to NATO. Since becoming Russia's president in 2000, Vladimir Putin has made the rebuilding of Russia's armed forces and the re-establishment of Russia as a major global power a key foreign policy priority.[15] As Dr. Michael Byers, Professor in the Political Science Department at the University of British Columbia, commented, Russia's military power was significantly reduced after the Cold War ended, and President Putin

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12 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

13 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

14 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

15 Claire Mills, *Russia's Rearmament Program*, United Kingdom House of Commons Library Briefing Paper No. 7877, 24 January 2017, p. 9.

is determined to reverse the situation.[16] Some witnesses suggested that Russia is engaging in "empire building," and that President Putin is nostalgic of the Soviet Union's superpower status and paramountcy in Europe.[17] Under his leadership, Russia has embarked on an ambitious military expansion and modernization program, investing significant resources in the rearmament of Russia's army, navy and air forces, as well as in the country's weapons development and manufacturing capabilities.[18] In keeping with what Mr. Dorn described as Russia's desire to "regain superpower status," Russia has increasingly conducted provocative military activities along its border with NATO as a way to extend its influence and hold control over neighbouring states.[19]

In the last decade, Russia has demonstrated a willingness to use force and violate international law regarding territorial integrity[20] to maintain its control over countries that it considers to be within its traditional sphere of influence.[21] Dr. Robert Huebert, a fellow with the Canadian Global Affairs Institute, pointed to Russia's military intervention in Georgia in 2008 as the first example of this shift towards the use of force to protect its foreign interests.[22] Russia exercised further aggression in 2014 when, under the pretext of a military exercise, it illegally annexed the Ukrainian region of Crimea and subsequently provided support for separatist rebels in eastern Ukraine.[23]

In further attempts to destabilize the Eastern European region, Russia has deployed military equipment and has conducted an increasing number of large military exercises along

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16 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

17 NDDN, *Evidence*, 1st Session, 42nd Parliament, 16 October 2017 (Taras Kuzio); NDDN, *Evidence*, 1st Session, 42nd Parliament, 23 October 2017 (Paul Grod).

18 International Institute for Strategic Studies [IISS], *The Military Balance 2018*, pp. 169 –218.

19 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

20 *Charter of the United Nations*, 1946, art. 2.

21 Mills, *Russia's Rearmament Program*, p. 4.

22 NDDN, Evidence, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert). In August 2008, Russian troops intervened in support of separatists fighting government forces in South Ossetia, Georgia. Russia claims that it intervened to protect the Russian minority in the region from Georgian military aggression, although analysts suggest that NATO's announcement regarding Georgian accession to NATO in April 2008 contributed to Russia's decision. The conflict lasted five days and a ceasefire agreement was signed on 12 August 2008. Russia has since recognized South Ossetia and Abkhazia – another secessionist region in Georgia – as independent states, a decision that continues to generate instability in the region. NATO has repeatedly called on Russia to reverse its recognition of South Ossetia and Abkhazia. For more information, see: Robert McMahon, "In Russia–Georgia Conflict, Balkan Shadows," Analysis Brief, Council on Foreign Relations, 13 August 2008; and NATO, "Relations with Georgia," 16 January 2018.

23 For more information on Russia's involvement in the conflict in Ukraine, see: NDDN, *Canada's Support to Ukraine in Crisis and Armed Conflict*, 1st Session, 42nd Parliament, December 2017.

NATO's eastern border. According to the International Institute for Strategic Studies, Russia has conducted thousands of military exercises in the past decade, which "have grown considerably in both size and sophistication since 2010."[24] Ainars Latkovskis, member of Latvia's Parliament (Seima) and Chair of its defence committee, stated that Russia's 2017 "Zapad" exercise, which extended from the Black Sea to the border with Norway, was its biggest military exercise ever.[25] The Organization for Security and Co-operation in Europe (OSCE) estimated that 12,700 soldiers took part in the exercise, although other sources have suggested that nearly 100,000 troops may have been involved.[26] Reports have also identified Russia's lack of transparency regarding the details of its exercise and the limited access that was provided to OSCE observers.[27]

Several of the Committee's witnesses attributed Russia's behaviour to its fear of NATO expansion. Former Minister of Foreign Affairs and Minister of National Defence, the Honourable Bill Graham, recounted that – in the 1990s – Russian officials had expressed fear that the extension of NATO membership to former allies of the Soviet Union was "directed against Russia."[28] Mr. Graham and Mr. Huebert attributed Russia's military actions in Georgia and Ukraine to concerns about these countries' membership in NATO. Mr. Huebert added that Russia's fear of NATO expansion is at the core of NATO's security dilemma: the higher the number of Eastern European countries that decide it is in their security interest to join NATO, the more Russia believes its own security is threatened and thus could resort to the use of force to prevent NATO's expansion eastward.[29] A number of witnesses suggested, however, that what Russia truly fears is not NATO's expansion; rather, as the Chair of the Political Science Department at Simon Fraser University Dr. Alexander Moens noted, Russia fears "the spreading practice of liberal democracy."[30]

Nevertheless, some witnesses underscored the importance of maintaining dialogue with Russia.[31] Mark Sedra, the President of the Canadian International Council, said that NATO

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24 IISS, *The Military Balance 2018*, p. 170.

25 NDDN, *Evidence*, 1st Session, 42nd Parliament, 13 February 2018 (Ainars Latkovskis).

26 Heidelberg Institute of International Conflict Research, *Conflict Barometer 2017*, University of Heidelberg, 2017, p. 35.

27 Ibid.

28 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

29 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

30 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens).

31 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

should avoid becoming too "Russo-centric."[32] He stressed that, despite Russia's provocative behaviour, NATO must remain "prepared to confront an array of 21st century challenges."[33]

The Committee's witnesses also discussed China, characterizing its rapid rise as a global economic and military power, and its willingness to use force to achieve its policy objectives, as another important global threat.[34] In recent years, China has embarked on an extensive military modernization program and is developing advanced weapons systems at a rapid pace.[35] In 2017, it was among the biggest global spenders on defence, second only to the United States.[36] According to Ambassador Buck, when NATO members discuss "situational awareness and Russia," they also "inevitably talk about China...."[37] Indeed, China's growing power and influence has affected the balance of power in Asia, which has implications for the security interests of NATO's partners in the Asia-Pacific region, including Australia, Japan, New Zealand and South Korea.[38] China's actions in the East and South China Seas are part of a broad attempt to make maritime territorial claims beyond its sovereign territory "through coercion, intimidation, and the threat of force," using both military and economic means.[39] China has deployed naval assets in contested areas in both regions, which risks disrupting important global trade routes in the Pacific Ocean and which has given rise to a major naval arms race in the Indo-Asia-Pacific region.[40] In addition, China has claimed sovereignty over islands in the East and South China Seas, and has been violating the United Nations Convention on the Law of the Sea (UNCLOS) since 2014 by constructing and militarizing artificial islands in the South China Sea.[41]

The rise of revisionist powers like Russia and China is only one part of the increasingly complex global security environment. Throughout the Committee's study, witnesses

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32 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

33 Ibid.

34 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

35 IISS, *The Military Balance 2018*, pp. 225–235.

36 IISS, "Top 15 Defence Budgets 2017," *The Military Balance 2018*.

37 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

38 Alexander Moens and Brooke A. Smith Windsor, eds., *NATO and Asia-Pacific*, NATO Defense College, Forum Paper 25, March 2016, p. xxiii.

39 Ibid., p. 17.

40 NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017, pp. 9–11.

41 Permanent Court of Arbitration, "The South China Sea Arbitration (The Republic of the Philippines v. The People's Republic of China)," News release, 12 July 2016.

warned of the threat posed by hybrid warfare, cyber-attacks and emerging technologies. As Canadian Global Affairs Institute Fellow Julian Lindley-French cautioned, these emerging threats are "part of a new escalation ladder that challenges fundamental conventions on traditional deterrence."[42]

## 2. Hybrid Warfare and the Cyber Threat

The International Institute of Strategic Studies defines "hybrid warfare" as "sophisticated campaigns that combine low-level conventional and space operations; offensive cyber and space operations; and psychological operations that use social and traditional media to influence popular perception and international opinion."[43] The threat posed by hybrid warfare has increased in speed and scale in recent years, particularly due to the use of the cyber domain to conduct such operations. Cyber operations can undermine the cybersecurity of governments and individuals around the world, and threaten the digital technology on which their critical infrastructure and communications systems rely. Although definitions of cybersecurity differ between sources, it can be understood as "the preservation – through policy, technology, and education – of the availability, confidentiality and integrity of information and its underlying infrastructure so as to enhance the security of persons both online and offline."[44]

The significance and scope of the cyber threat relates partially to the accessibility of cyber technology, and its ability to disrupt critical civilian and military infrastructure. As NATO's Deputy Assistant Secretary General for Emerging Security Challenges Jamie Shea noted, the accessibility of cyber platforms "allows virtually anybody in the world to become a strategic actor – and a very small investment compared with what states used to have to invest to develop significant capabilities."[45] He further explained that an increasing number of state and non-state actors now have the power to launch a cyber-attack at any time, from anywhere and inflict significant damage.[46] Rafal Rohozinski, a consulting senior fellow in the Future Conflict and Cyber Security program at the International Institute of Strategic Studies, estimated that about 140 countries are

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42 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Julian Lindley-French).

43 IISS, ***The Military Balance***, 2015, quoted in International Centre for Defence and Security, *The Challenges of Hybrid Warfare*, April 2015, p. 3.

44 Holly Porteous, *Cybersecurity: Technical and Policy Challenges*, no. 2018-05-E, Parliamentary Information and Research Service, Library of Parliament, Ottawa, 16 February 2018.

45 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Jamie Shea).

46 Ibid.

currently developing cyber capabilities.[47] Mr. Rohozonski emphasized that Western society's reliance on cyber technology for critical infrastructure increases the scale of cyber threats, highlighting that everything from the global economy to communications technology and basic infrastructure depend on the Internet, which itself "was built for resilience rather than for security."[48] He also raised the issue of the "dangerous entanglement between cyber capabilities and their social impacts,"[49] and stressed that, in less than a decade, two thirds of the global population has gained access to the Internet.[50] He added that, in many countries, an individual's first contact with the Internet has been on social media networks, such as Facebook.[51] In fact, although Facebook's Internet.org program is intended to provide Internet to individuals in developing countries, observers have noted that this initiative does not provide free access to the Internet because Facebook is often the only application that users can access without cost.[52]

The cyber threat is complicated by the challenges associated with classification, attribution and response. Mr. Shea underlined that, because most cyber-attacks are below the threshold of an event that would lead to Article 5 of the *North Atlantic Treaty* being invoked, determining the gravity of a cyber-attack is a major challenge.[53] Mr. Huebert explained that attribution is a significant challenge because attackers "are becoming increasingly sophisticated in hiding their footprint."[54] These challenges complicate a country's ability to respond appropriately given that, as Mr. Rohozinski highlighted, the cyber domain is one in which states "have the least experience in understanding the levers of escalation and de-escalation."[55]

Hybrid warfare is at the core of both Russia's foreign policy and its military strategy. As Marcus Kolga, a senior fellow at the McDonald-Laurier Institute, told the Committee,

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47 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski).

48 Ibid.

49 Ibid.

50 Ibid.

51 Ibid.

52 Leo Mirani, "Millions of Facebook users have no idea they're using the internet," *Quartz*, 9 February 2015.

53 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Jamie Shea). The founding principle of collective defence is enshrined in Article 5 of the *North Atlantic Treaty*, which states that an attack on one NATO country is considered an attack on all NATO countries.

54 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

55 NDDN, Evidence, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski).

> In February 2013, Russia's chief of the general staff, General Valery Gerasimov, declared that political destabilization through non-military tactics, including information warfare, psychological operations, and cyber ops would be the preferred method of winning future conflicts for Russia.[56]

A report from the RAND Corporation states that Russia uses hybrid warfare to encourage public support for domestic policy issues, divide and weaken NATO, subvert pro-Western governments, create pretexts for war, annex territories and ensure access to European markets.[57]

The Committee heard that Russia's active disinformation campaigns against NATO seek to villainize NATO and weaken public support for its activities. These campaigns take place across a range of platforms, from traditional media to social media platforms, including Facebook and Twitter. Its information warfare campaign has been particularly focused on NATO's eFP in the Baltics and Poland. As Mr. Latkovskis noted, approximately 80% of all Russian and English-language Facebook posts or tweets about NATO's operations in the Baltics and Poland came from Russia, and most of this social media content is automated.[58] The President and Chief Executive Officer of the NATO Association of Canada, Robert Baines, added that 26% of English-language activity about NATO's operations in the region is automated.[59] Ambassador Buck mentioned the "active and constant Russian misinformation campaigns" against the Canadian-led battlegroup in Latvia.[60] Dr. Stéfanie von Hlatky, an associate professor and director of the Centre for International and Defence Policy at Queen's University, remarked that Russia's disinformation campaign against Canadian troops included articles in Russian-language media spreading fake and misleading news to "undermine the masculinity of the Canadian Armed Forces."[61] Mr. Latkovskis also discussed the dissemination in Lithuania of Russian-backed news stories containing false allegations of sexual misconduct by German troops.[62]

Russian disinformation campaigns extend to individual NATO countries as well. In the view of Mr. Kolga, "the Kremlin's information warfare campaign represents the greatest

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56 NDDN, *Evidence*, 1st Session, 42nd Parliament, 4 October 2017 (Marcus Kolga).

57 Christopher Chivvis, *Understanding Russian "Hybrid Warfare" And What Can Be Done About It*, Testimony presented to the U.S. House Armed Services Committee, 22 March 2017, p. 1.

58 NDDN, *Evidence*, 1st Session, 42nd Parliament, 13 February 2018 (Ainars Latkovskis).

59 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines).

60 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

61 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Stéfanie von Hlatky).

62 NDDN, *Evidence*, 1st Session, 42nd Parliament, 13 February 2018 (Ainars Latkovskis).

threat to western democracy and its institutions since the Cold War."[63] He indicated that these campaigns are "designed to divide our societies, amplify and aggravate differences, and pit us against each other."[64] Canadian elected officials have been targeted by Russian disinformation campaigns, including Minister of Foreign Affairs Chrystia Freeland, as well as a number of other parliamentarians.[65] There are also concerns that Canada's next federal election could be the target of Russian misinformation campaigns.[66] In the U.S. federal elections in 2016, Russia's Internet Research Agency created hundreds of Facebook accounts to spread false information about the presidential candidates and to foster distrust in political institutions.[67] Because of Facebook's machine-learning algorithms, which collect large amounts of data on users, the Internet Research Agency's Facebook accounts were able to target American voters who were more likely to believe and trust the misinformation.[68] Russian-sponsored news stories were also circulated throughout traditional media and social media channels attempting to affect the outcomes of elections in Germany, France and the Netherlands, as well as of the United Kingdom's Brexit referendum.[69] Regarding traditional media channels, Mr. Kolga noted that, in Canada, "the Kremlin's anti-western messaging has wide-open channels into almost every Canadian home through their state media channel, Russia Today."[70]

Russia's hybrid warfare tactics also include offensive cyber operations against critical infrastructure and communications networks. The country has used cyber-attacks in a number of theatres to destabilize governments and support its own military operations. Mr. Kolga gave the example of events in Estonia in 2007 where, after riots broke out at the Russian embassy in Tallinn over the relocation of a Soviet war monument, Russia launched "the first ever state-initiated cyber-attacks," shutting down Estonian

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63 NDDN, *Evidence*, 1st Session, 42nd Parliament, 4 October 2017 (Marcus Kolga).

64 Ibid.

65 NDDN, Evidence, 1st Session, 42nd Parliament, 16 October 2017 (Taras Kuzio).

66 Mike Blanchfield, "NATO Researcher Warns of Russian Interference in 2019 Canadian Election," ***CBC***, 27 February 2018.

67 U.S. House of Representative Committee on Energy and Commerce (United States), "Testimony of Mark Zuckerberg – Chairman and Chief Executive Officer, Facebook," 11 April 2018.

68 Dipayan Ghosh and Ben Scott, "Russia's Election Interference is Digital Marketing 101," ***The Atlantic***, 19 February 2018.

69 See: Stefan Meinster and Jana Puglierin, "Perception and Exploitation: Russia's Non-Military Influence in Europe," ***DGAPkompact***, No. 10, October 2015; and Constanze Stelzenmuller, "The impact of Russian Interference on Germany's 2017 elections," Testimony to the U.S. Senate Select Committee on Intelligence, 28 June 2017.

70 NDDN, *Evidence*, 1st Session, 42nd Parliament, 4 October 2017 (Marcus Kolga).

"government, media and banking web services" with widespread denial of service attacks.[71] More recently, Russia has conducted cyber-attacks against critical infrastructure and communication networks in Ukraine amid ongoing conflict in the east.[72] In December 2015, a Russian-backed cyber-attack disrupted the country's power grid, which caused major blackouts throughout Ukraine.[73] In 2017, Russian cyber-attacks were launched against both the Odessa airport and the Kyiv subway system, with the intention of disrupting critical services in the country.[74] Mr. Latkovskis told the Committee that he believes the most likely Russian threat to Latvia is not an invasion by land, but a cyber-attack. He said: "I'm not afraid of invasion, military invasion. In reality cyber-attack could come right away."[75]

### 3. Advancements in Weaponry and Military Technology

The Committee's witnesses also expressed concerns about the rapid pace of technological advancements in weapons systems and their potential impact on the nature of warfare. As the Secretary General of the NATO Parliamentary Assembly David Hobbs stated, rapid developments in advanced weapons systems, including autonomous weapons systems, artificial intelligence, hypersonic missiles and quantum computing have "utterly transformed the way warfare is conducted."[76] Mr. McRae added that autonomous weapons technology effectively allows countries to achieve their military objectives "by staying home and sending high-tech weapons abroad."[77]

Several witnesses discussed the lack of regulation of these weapons systems and the potential ethical considerations about their use. Mr. Sedra told the Committee that no one "fully understand[s] the implications and potential risk factors of this technology."[78] Because human decision-making is removed from the operating process, Mr. Sedra, Mr. Rohozinski and Mr. Shea urged caution regarding the military's use of autonomous weapons. As Mr. Sedra pointed out, "[t]hese are weapons systems where no human is at

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71 Ibid.

72 For more information on Russian cyber-attacks, see: NDDN, *Canada's Support to Ukraine in Crisis and Armed Conflict*, 1st Session, 42nd Parliament, December 2017, pp. 11–12.

73 Ibid., pp. 11-12.

74 Ibid., p. 12.

75 NDDN, *Evidence*, 1st Session, 42nd Parliament, 13 February 2018 (Ainars Latkovskis).

76 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

77 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

78 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

the joystick. These are targeting people based on algorithms."[79] Mr. Shea added that these technologies have both good and bad aspects, and that governments need to do better in anticipating how to mitigate these risks.[80]

### 4. Nuclear Weapons

Throughout the Cold War, the threat of nuclear war between the world's two biggest nuclear powers – the Soviet Union and the United States – prompted the establishment of a number of agreements to limit their proliferation and use. At the core of these non-proliferation efforts is the *Treaty on the Non-Proliferation of Nuclear Weapons*, commonly known as the Non-Proliferation Treaty (NPT); it entered into force in 1970, and all NATO members are signatories.[81] President of the Rideau Institute on International Affairs Peggy Mason explained to the Committee that, when the Cold War ended, arms reductions agreements between the United States and Russia significantly reduced their nuclear arsenals and compelled NATO to declare that nuclear forces were "truly weapons of last resort."[82]

Nevertheless, since then, the materials and technologies that are used to build nuclear weapons have proliferated.[83] Today, nine countries possess nuclear weapons – the United States, Russia, the United Kingdom, France, China, India, Pakistan, Israel and the Democratic People's Republic of Korea (North Korea) – and many of them are expanding and/or modernizing their nuclear arsenals.[84] For some nuclear weapons states, including China, Russia and the United States, modernization entails making technological improvements to increase the accuracy and efficiency of their nuclear weapons. Other nuclear states, like India, Pakistan and North Korea, are in the process of expanding the size of their nuclear arsenals.[85]

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79 Ibid.

80 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Jamie Shea).

81 United Nations Office for Disarmament Affairs, *Treaty on the Non-Proliferation of Nuclear Weapons*.

82 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason); and U.S. Department of State, *Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of their Intermediate-Range and Shorter-Range Missiles (INF Treaty)*.

83 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

84 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason); and Shannon N. Kile and Hans M. Kristensen, "Trends in World Nuclear Forces, 2017," Stockholm International Peace Research Institute (SIPRI), July 2017, p. 2.

85 Shannon N. Kile and Hans M. Kristensen, "Trends in World Nuclear Forces, 2017," SIPRI, July 2017, p. 2.

Together, the United States and Russia possess almost 93% of the world's nuclear weapons, and both countries have launched extensive and costly modernization programs for their nuclear delivery systems, warheads and production facilities.[86] Several witnesses were alarmed about these programs amid rising tensions between the two countries.[87] Russia's program includes modernization of its conventional and tactical nuclear weapons.[88] According to Mr. McRae, Russia has approximately 4,000 nuclear weapons.[89] Ms. Mason noted that the United States' modernization program includes the deployment of tactical nuclear weapons into NATO countries, including Germany, Belgium, the Netherlands, Italy and Turkey.[90] In February 2018, the United States released its Nuclear Posture Review, which includes plans to develop new low-yield nuclear weapons.[91] In the view of Mr. Rohozinski:

> [T]he U.S. declaration of the development of a new generation of nuclear weapons that are ... more usable, in that yields can be adjusted—sends a very poor message to the rest of the world, in the sense that these weapons can now be used in a contained manner.[92]

Witnesses added that progress on disarmament by Russia and the United States is unlikely in the foreseeable future. Nuclear arms control, disarmament and non-proliferation processes being negotiated by the United States and Russia have stalled.[93] Mr. Rohozinski said that a number of "confidence-building measures in the nuclear security chain" between Russia and the United States that were established before and after the Cold War, such as the Cooperative Threat Reduction Program, "are now being rolled back and they're not being replaced by anything."[94]

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86 Ibid.

87 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski); NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

88 Hans M. Kristensen and Robert S. Norris, "Russian Nuclear Forces, 2017," *Bulletin of the Atomic Scientists*, Vol. 73, No. 2, 4 March 2017, p. 122–123.

89 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

90 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason).

91 Hans M. Kristensen and Robert S. Norris, "United States Nuclear Forces, 2018," *Bulletin of the Atomic Scientists*, Vol. 74, No. 2, 4 March 2018, p. 122.

92 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski).

93 SIPRI, *SIPRI Yearbook 2017: Armaments, Disarmaments and International Security (Summary)*, 2017, p. 18.

94 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski). The Cooperative Threat Reduction Program is also known as the Nunn-Lugar Program. The program was established to secure and dismantle "weapons of mass destruction and their associated infrastructure in the former states of the Soviet Union." See: Justin Bresolin, "Fact Sheet: The Nunn-Lugar Cooperative Threat Reduction Program," The Centre for Arms Control and Non-Proliferation, June 2014.

Mr. Fadden told the Committee that one significant threat from nuclear weapons stems from unstable nuclear countries. Mr. Fadden doubted that countries like France, the United Kingdom or the United States would "treat these matters easily," but pointed to such countries as North Korea, Pakistan and Iran as the more genuine threat.[95]

Recent developments in North Korea have heightened global concerns about nuclear weapons. As Mr. Sedra told the Committee, "in light of what's happening in North Korea, the proliferation of nuclear weapons is one of the most profound security threats to the planet."[96] Since 2006, North Korea has conducted six increasingly powerful nuclear tests in defiance of international sanctions and condemnation.[97]

Witnesses also mentioned Pakistan's nuclear arsenal and Iran's potential nuclear program as causes for concern. Mr. McRae highlighted that Pakistan has the "most active nuclear weapons production facility in the world."[98] He added that there is no security protocol for these weapons, which is particularly worrying because of the instability in the region and the multiplicity of dangerous non-state actors.[99] In the case of Iran, though the signing of the Joint Comprehensive Plan of Action (JCPOA) in July 2015 effectively restricted Iran's ability to develop nuclear weapons, the University of Manitoba's Dr. James Fergusson, a professor with the Centre for Defence and Security Studies in the Department of Political Science, highlighted that Iran could develop nuclear capabilities relatively quickly if circumstances were to change.[100] In April 2018, the Israeli government reported that Iran lied about its nuclear weapons program prior to signing the JCPOA and suggested that the country cannot be trusted to abide by the terms of the agreement.[101] In May 2018, U.S. President Donald Trump withdrew the United States from the JCPOA citing concerns over Iran's compliance with the

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95 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

96 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

97 Shannon N. Kile and Hans M. Kristensen, "Trends in World Nuclear Forces, 2017," SIPRI, July 2017, p. 8.

98 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

99 Ibid.

100 Ibid. The Joint Comprehensive Plan of Action does not address Iran's missile program. However, United Nations Security Council Resolution 2231, which was adopted on 20 July 2015, imposes an eight-year conditional ban on the development of Iranian missiles designed to deliver nuclear weapons. See: Paulina Izewicz, "Iran's Ballistic Missile Programme: Its Status and the Way Forward," Non-Proliferation Papers, EU Non-Proliferation Consortium, No. 57, April 2017.

101 David M. Halbfinger, David E. Sanger and Ronen Bergman, "Israel Says Secret Files Detail Iran's Nuclear Subterfuge," *New York Times*, 30 April 2018.

agreement.[102] Mr. Fergusson also raised the issue of a possible regional reaction, particularly by Israel and Saudi Arabia, to the development of nuclear weapons by Iran, which according to him would represent another grave threat to global stability.[103]

As Mr. Rohozinski commented, another dimension of the nuclear threat is the "entanglement between nuclear and cyber domains, as it pertains to the development of new classes of both nuclear weapons as well as the actors that are involved."[104] He explained that the modernization programs undertaken by major nuclear powers and the replacement of old analog versions of command-and-control systems to digital operating systems could make their nuclear weapons more susceptible to cyber-attacks.[105] He claimed that this capability effectively lowers "the threshold for countries to effectively join an elite club and be able to hold the world's digital economy to ransom."[106] Mr. Rohozinski added that the emergence of thermonuclear weapons, which generate electromagnetic pulses – rapid bursts of electromagnetic energy that can shut down power grids, phone lines and Internet services when detonated can "bring chaos across a wide range of infrastructure."[107] That said, electromagnetic pulses can be generated by a purpose-built non-nuclear electromagnetic pulse weapon "that transforms battery power, or chemical reaction or explosion, into intense microwaves," although the impact is of a smaller scale than those generated through nuclear detonations.[108]

### 5. Ballistic and Cruise Missile Proliferation

Witnesses noted that, in addition to the threat of nuclear proliferation, the proliferation of both ballistic and cruise missile technologies poses another threat to global security. NATO's 2010 Strategic Concept discusses the proliferation of missiles as a threat to Euro-Atlantic security and NATO's collective defence posture.[109] Ballistic missiles are powered by rockets and can carry nuclear, biological, chemical or conventional warheads. Once launched, they follow an arched trajectory, ascending beyond the earth's atmosphere

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102 "Trump Pull U.S. Out of 'Disastrous' Iran Nuclear Deal, Will Restore Sanctions," *The Associated Press*, 8 May 2018.

103 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

104 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Rafal Rohozinski).

105 Ibid.

106 Ibid.

107 Ibid.

108 Clay Wilson, *High Altitude Electromagnetic Pulse (HEMP) and High Powered Microwave (HPM) Devices: Threat Assessment*, Congressional Research Service Report, 21 July 2008, p. 6.

109 NATO, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization*, November 2010, p. 10.

before descending to earth to reach their intended target.[110] Ballistic missiles have ranges that extend from 1,000 kilometres (km) to over 5,500 km. The most powerful ballistic missiles, known as Intercontinental Ballistic Missiles (ICBMs), have the ability to reach targets that are continents away, making them truly global threats. Cruise missiles have a shorter range than ballistic missiles, but can also be armed with nuclear, biological, chemical or conventional warheads. They remain within the earth's atmosphere for the duration of their flight and are able to fly close to the ground, making them difficult to detect.[111]

Several witnesses warned of the threat posed by Russia's missile capabilities. In recent years, Russia has undertaken a modernization of its missile capabilities to replace old Soviet weaponry.[112] The modernization includes plans to augment its number of ICBMs and Submarine-Launched Ballistic Missiles (SLBMs).[113] In addition, Russia has been developing cruise missile capabilities, which threatens NATO's members in Europe in particular.[114] In addition, Mr. McRae noted that Russia's development of a high-speed cruise missile violates the *Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of their Intermediate-Range and Shorter-Range Missiles*, also known as the Intermediate-Range Nuclear Forces (INF) Treaty.[115]

Witnesses also pointed to ballistic missile development in North Korea and Iran as threats to global stability. In addition to its increasingly powerful nuclear tests, North Korea has been conducting missile tests at an unprecedented rate since 2016, and is reportedly developing a long-range ballistic missile capable of carrying a nuclear weapon that could reach the mainland of the United States.[116] Mr. Fergusson noted that Iran's missile program has reached an intermediate range, which could "bring all of Europe pretty well under threat," and might also include an ICBM, which could threaten North America.[117]

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110 Center for Arms Control and Non-Proliferation, "Fact Sheet: Ballistic vs. Cruise Missiles," 27 April 2017.

111 Ibid.

112 SIPRI, *SIPRI Yearbook 2017: Armaments, Disarmaments and International Security (Summary)*, 2017, p. 18.

113 Steven Pifer, "Pay attention, America: Russia is upgrading its military," ***Brookings***, 5 February 2016.

114 Ibid.

115 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae). Signed in 1978, the INF Treaty is an agreement between the United States and the Soviet Union that "requires destruction of the Parties' ground-launched ballistic missiles and cruise missiles with a range of between 500 and 5,500 kilometres and associated support structures and support equipment within three years after the Treaty enters into force." See: *Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of their Intermediate-Range and Shorter-Range Missiles*, 1978.

116 Shannon N. Kile and Hans M. Kristensen, "Trends in World Nuclear Forces, 2017," SIPRI, July 2017, p. 8.

117 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

## 6. Space Domain Threats

Although there is no agreed legal definition of outer space, there is a growing consensus that space can be defined as beginning 100 km above the Earth.[118] Space is composed of vacuum space and celestial objects. Countries cannot claim sovereignty in space and – although this zone is largely ungoverned – international treaties on space underline that it should remain an area of peaceful cooperation.[119]

Space is home to over one thousand satellites that orbit the earth, and enable critical civilian and military infrastructure. United Kingdom Member of Parliament Madeleine Moon told the Committee that "[s]atellite constellations are now vital for the efficient functioning of modern infrastructure, both military and civilian."[120] States and their militaries rely on space-based systems for communication, navigation, forecasting, tracking and targeting capabilities.[121] However, as Ms. Moon noted, "outer space is becoming increasingly congested, contested and competitive."[122] In recent years, the space domain has seen a proliferation of new actors that could threaten the vital space-based assets that enable critical infrastructure to function. According to Ms. Moon, "[s]pace is increasingly at the forefront of the security policy and planning debate, and a key area of global geopolitics."[123]

In the past two decades, an increasing number of state and non-state actors have acquired space capabilities.[124] According to Ms. Moon, there are now up to 1,500 satellites in orbit, and approximately 40% of those are used for military purposes.[125] She added that this influx of new actors "is making the three principal geocentric orbits congested and dirty."[126] This congestion heightens the risk posed by space debris "resulting from collisions, defunct satellites, and decades of ill-regulated

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118 Matthew T. King, *Sovereignty's Gray Area: The Delimitation of Air and Space in the Context of Aerospace Vehicles and the Use of Force*, LL. M. thesis, McGill University, Montreal, December 2015, p. 41.

119 United Nations Office for Outer Space Affairs, "Space Law Treaties and Principles"; *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, 1966, art. IV.

120 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

121 Madeleine Moon, *The Space Domain and Allied Defence*, NATO Parliamentary Assembly, 8 October 2017, p. 1.

122 Ibid.

123 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

124 Moon, *The Space Domain and Allied Defence*, p. 1.

125 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

126 Ibid.

activities in space."[127] Space debris can cause costly damage to, or even destroy, space-based assets.[128] The opening up of the space domain has also increased competition between the United States, Russia and China for more access to space and more advanced space-based military capabilities, and has lowered the barrier for entry to this new domain for other, less powerful actors.[129] These three countries have been developing their space-based military capabilities, including anti-satellite weapons "designed to incapacitate damage or destroy satellites for strategic military purposes."[130]

Another issue in the space domain is the threat posed by non-destructive methods of attack on space-based assets, such as cyber-attacks, that can disrupt service or deny access to satellites. In her report presented to the NATO Parliamentary Assembly, Ms. Moon noted that "space warfare is more likely to involve the denial of vital information flows supporting command and control of an enemy's forces."[131] This type of attack could effectively shut down cellular telephone networks or other critical civilian and military communications services. Space assets are especially vulnerable to cyber-attacks because they require regular security upgrades to their software through remote connections.[132]

### 7. Threats to the Arctic and Maritime Security Environments

Another region that is returning to the forefront of the global security agenda is the Arctic. Throughout the Cold War, the Arctic was considered to be the "second most dangerous frontier" and there was considerable militarization by the Soviet Union, as well as the United States and its NATO allies.[133] When the Cold War ended, the strategic value of the Arctic diminished and it became a region of cooperation among Arctic nations.[134]

The effects of climate change on the environment in the Arctic have refocused global attention on the region as a potential geopolitical hotspot. As Mr. Huebert warned, the

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127 Moon, *The Space Domain and Allied Defence*, p. 4.

128 Ibid.

129 Ibid., p. 3.

130 Ibid., p. 6.

131 Ibid., p. 7.

132 Ibid., p. 7.

133 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

134 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers); Arctic Council, *The Arctic Council: A Backgrounder*, 26 May 2017; Kristina Spohr, "The Scramble for the Arctic," *The New Statesman*, March 2018.

Arctic is becoming an "increasingly complex and ... dangerous environment."[135] The rapid melting of polar ice in the Arctic will grant access to a considerable amount of natural resources and will open new Arctic maritime trade routes.[136] In recent years, a number of Arctic states, including Denmark, Norway, Russia and the United States, have begun strengthening their military capabilities in the region.[137]

Several of the Committee's witnesses highlighted Russia's military build-up in the Arctic as a potential threat. Mr. Fadden indicated that Russia has started to re-build its Cold War bases in the Arctic.[138] Russia has significantly increased its submarine activity in the region, and has augmented its number of ballistic and cruise missile-capable submarines in the Arctic Ocean.[139] In recent years, Russia has also conducted many large-scale military exercises in the Arctic and has increased long-range aviation flights approaching North America.[140] As well, the country is working towards improving its icebreaking capabilities and modernizing its air defence system in the Arctic region.[141]

However, many witnesses attributed this military build-up to the region's geographical and economic significance for Russia. Mr. Byers noted that "Russia has roughly half of the Arctic to itself, unquestionably, under international law."[142] He further suggested that the so-called Russian military build-up is largely a response to the opening up of the northern sea route along its Arctic coast to foreign shipping.[143] Major-General William Seymour, the Chief of Staff Operations at the Canadian Joint Operations Command, echoed this perspective, stating that Russia's Arctic territory is "fundamentally important to the future of their economy."[144] It accounts for 14% of the country's oil production

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135 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

136 For additional information, see: NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017, p. 9.

137 Ibid., p. 14.

138 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

139 For additional information, see: NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017, p. 11.

140 For additional information, see: NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016, p. 12.

141 See: Benjamin Schaller, "The Unpredictable Russian Bear Flexes Its Muscles," *Arctic Deeply*, 15 August 2016; NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016, p. 12.

142 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

143 Ibid.

144 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour).

and 80% of its natural gas production, and the region's natural resources account for 20% of its GDP.[145]

Ambassador Buck, Mr. Byers and Mr. Fergusson agreed that the Russian threat is concentrated primarily in the European portion of the Arctic.[146] Mr. Byers characterized the security environment in the North American Arctic as considerably different from the European Arctic, highlighting specifically that Norway, which shares a land border with Russia, is "very concerned about Russia in their Arctic."[147] Mr. Fergusson added that Russia's "long range aviation and bastioning of their submarine-launched ballistic missile fleets" takes place in Norway's Arctic, making it the "key strategic issue" for NATO in the region.[148]

A number of witnesses raised the issue of China's increased presence in the Arctic region. The opening of new Arctic maritime trade routes — in particular, Canada's Northwest Passage and the Northern Sea Route, which is located in the Russian Arctic — has increased China's interest in the region.[149] Analysts have suggested that, as the polar ice melts in the coming decades, shipping through the Northwest Passage will be highly profitable because, when compared to shipping through the Panama Canal, could reduce a journey from Asia to Europe by about 4,000 km.[150] China has begun deploying naval assets in the Artic and, as Mr. Fadden mentioned, has recently declared itself a near-Arctic power.[151] In January 2018, China announced its Arctic Strategy in its "Polar Silk Road" white paper, which places emphasis on the Northwest Passage and the Northern Sea Route as pathways that are likely to become important international trade routes.[152] In addition, China has sought closer cooperation with Russia on access to the Northern Sea Route, as well as on a number of resource extraction projects in the

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145 Camilla T. N. Sørensen and Ekaterina Klimenko, *Emerging Chinese-Russian Cooperation in the Arctic*, SIPRI, Policy Paper No. 46, June 2017, p. 14.

146 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

147 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

148 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

149 Jane Nakano, "China Launches the Polar Silk Road," Centre for Strategic and International Studies, 2 February 2018.

150 Paul Waldie, "A reality check on the Northwest Passage 'boom'," *Globe and Mail*, 25 March 2017.

151 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

152 Jane Nakano, "China Launches the Polar Silk Road," Centre for Strategic and International Studies, 2 February 2018.

Arctic.[153] The heightened concern about China's involvement in the Arctic is linked to the country's broader military buildup and its activities in the South China Sea, where it has made territorial claims that violate UNCLOS.[154]

Nevertheless, Mr. Fergusson told the Committee that China's involvement in the Arctic should not be considered a threat. According to him, China's Arctic pursuits are related to its desire to be considered a great power with global interests that would like to be included in discussions of Arctic issues.[155] He added that, if China's interest in the Arctic is related to increased access to trade routes, "it's the eastern passes, the Russian passage, that are the much easier and more profitable one."[156]

Several witnesses pointed to hostile actors in the North Atlantic as a more significant threat than those in the Arctic. Ambassador Buck noted that, as part of its military modernization, Russia is working to improve its "capabilities to operate in the North Atlantic."[157] The University of Manitoba's Dr. Andrea Charron, assistant professor in political science and director of the Centre for Security Intelligence, emphasized that, in the past 10 years as political relations between Russia and NATO have deteriorated, Russia has developed considerable naval capabilities. She warned that the country now poses "a growing maritime threat."[158] Russia's new naval doctrine, which was approved in July 2017, includes plans to develop both its submarine warfare capabilities further and its strategic conventional deterrent capabilities, including hypersonic missiles and autonomous systems.[159]

Ambassador Buck, Ms. Charron and Mr. Fergusson emphasized that the main vulnerability in the North Atlantic is the Greenland–Iceland–United Kingdom (GIUK) gap. Ms. Charron recalled that the gap was a key "sea-line of communication in the North Atlantic during the Cold War" and was "notorious for enemy sub activity."[160] According to her, since the end of

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153 Kristina Spohr, "The Scramble for the Arctic," *The New Statesman*, March 2018.

154 United Nations Convention on the Law of the Sea, 1982. For more information, see: NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017, p. 11.

155 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

156 Ibid.

157 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck). For more information on the development of Russia's maritime capabilities, see: NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017, pp. 11–12.

158 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron).

159 IISS, *The Military Balance 2018*, p. 169.

160 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron).

the Cold War, the GIUK gap has become a "neglected area of strategic significance."[161] She explained that mechanisms established to ensure protection of the North Atlantic region have been terminated, including the Supreme Allied Command, so as to allow NATO to concentrate on other maritime security threats.[162]

### 8. Terrorism and Instability on NATO's Southern Flank

Over the past several years, conflicts from Syria and Iraq to Libya and Yemen have led to the emergence of powerful transnational terrorist groups, and have generated massive refugee flows and instability along NATO's southern flank.

As Mr. Hobbs noted, instability and conflict in the Middle East can destabilize entire regions and threaten the security of NATO countries.[163] Pointing to the example of Afghanistan, Mr. Fadden highlighted that it is in unstable and poorly governed states that terrorist groups have grown in size and strength, and have demonstrated their ability to exacerbate local conflicts and disrupt global stability.[164] Transnational terrorist groups — including the Islamic State of Iraq and Syria, or ISIS (which is also known as Daesh) Al Qaida, Boko Haram, Al Shabaab and their many affiliates — have proliferated and have extended their geographic reach over the past decade.[165] Ambassador Buck and Mr. Sedra highlighted the persistent threat of transnational terrorism both within and beyond NATO's borders. The rise of ISIS forces in Iraq and Syria in 2013 and 2014 illustrated the strength and reach of this threat, as the group has been able to conduct attacks across the Middle East, as well as in France, Belgium, Spain and Turkey.[166]

Lieutenant-General (Retired) Charles Bouchard, the former Commander of NATO's Operation UNIFIED PROTECTOR, pointed to the unprecedented migration flows generated by crises in the Middle East and North Africa region as another potentially destabilizing force.[167] According to Lieutenant-General (Retired) Bouchard, NATO "has a

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161 Ibid.

162 Ibid.

163 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

164 NATO, *The Secretary General's Annual Report 2017*, 15 March 2018, p. 56.

165 For additional information see: Public Safety Canada, "Currently listed entities," Listed Terrorist Entities, 15 February 2018.

166 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra); and NATO, "NATO Leaders Agree to do More to Fight Terrorism and Ensure Fairer Burden-Sharing," News release, 25 May 2017.

167 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (Lieutenant-General (Retired) Charles Bouchard).

responsibility to protect those who cannot defend themselves and to create an environment in which diplomacy and self-government may take root."[168] In 2015, the United Nations registered a total of 21.3 million refugees worldwide, which is the largest recorded number in the past two decades.[169] The migration crisis has profoundly affected NATO members, particularly those in Europe, which have been forced to address massive influxes of refugees and asylum seekers who are arriving on Europe's shores on land or by sea.[170]

## 9. Political Dynamics and Threats to NATO's Unity

In addition to the multiple external threats facing NATO, several of the Committee's witnesses raised the issue of political dynamics within NATO countries as testing NATO's unity. NATO was founded on the need to safeguard "the freedom of its peoples based on the principles of democracy, individual liberty and the rule of law."[171] As such, according to Mr. Graham, NATO is "as much a political alliance as a defence alliance."[172] He underlined that recent political developments in certain NATO countries suggest that "there are some cracks in that façade."[173]

Witnesses pointed to the political dynamics in Turkey and other countries as straying from NATO's foundational political values. Vice-Admiral (Retired) Robert Davidson, a former Canadian Military Representative to NATO, pointed to the rise of populism and nationalism across some NATO countries and suggested that "democracy itself is under siege."[174]

At its core, NATO is a values-based alliance. NATO's 2010 Strategic Concept states that "NATO member states form a unique community of values, committed to the principles of individual liberty, democracy, human rights and the rule of law."[175] Ambassador Buck underscored the central importance of these political values and highlighted that NATO's strength comes from its political unity. She highlighted that "NATO is primarily a political

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168 Ibid.

169 SIPRI, "Coping With Crises: Forced Displacement in Fragile Contexts," *SIPRI Yearbook 2017: Armaments, Disarmaments and International Security*, 2017, p. 253.

170 Ibid., pp. 280–282.

171 Global Affairs Canada [GAC], *North Atlantic Treaty Organization*, 4 November 2015.

172 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

173 Ibid.

174 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

175 NATO, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization*, November 2010, p. 6.

military alliance, and I will insist on the political part of that. Quite often, in the view of the public, it's seen as primarily a military yes but it has a big political role."[176] She added that, when concerns arise about a member state straying from NATO's values, NATO "becomes a space where we can keep people in the tent, keep allies in the tent, and try to reinforce and re-instill those values."[177] Several witnesses expressed concern about political and military developments in Turkey.[178] Mr. McRae noted, in particular, that NATO allies have been critical of Turkey's "entanglements across the border" into Syria, which create complications for the NATO alliance.[179] However, they also highlighted that Turkey is an important ally in NATO given its geographic proximity to the Middle East and that, as Ambassador Buck said, it is in NATO's "interest to keep them as an important ally in NATO."[180]

Vice-Admiral (Retired) Davidson, Mr. Hobbs and Ambassador Buck added that disagreements among NATO members are neither new nor insurmountable problems. According to Ambassador Buck, within NATO, adherence to the values of democracy "has waxed and waned over the years."[181] Vice-Admiral (Retired) Davidson and Mr. Hobbs pointed to conflict between Greece and Turkey over Cyprus, as well as the period of dictatorship in Portugal, as examples of political challenges that NATO was able to overcome.[182]

Political developments in the United States since the election of President Trump in 2016 were also mentioned as a potential issue for NATO. Mr. Sedra pointed to President Trump's initial characterization of NATO as "obsolete," and suggested that this rhetoric has put into question the United States' leadership of NATO.[183] Dr. Sarah Jane Meharg, adjunct professor at the Royal Military College of Canada, reinforced this point, adding that concerns about U.S. leadership has left Europeans feeling threatened "because they can't

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176 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

177 Ibid.

178 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

179 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

180 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

181 Ibid.

182 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson; and NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

183 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

rely on what they consider to be a U.S.-guaranteed security in their future."[184] Mr. McRae warned that President Trump's rhetoric on burden-sharing issues has undermined the fundamental deterrence policy of Article 5.[185] He said that, "[w]hen one hears the President of the United States saying that Article 5 is conditional on the record of an ally's contribution to its defence budget, we should be worried."[186] Mr. McRae added that, at a time "when Russia is more unpredictable, and Putin is going to be there for a long time, NATO has on its own, to Putin's delight, undermined its own deterrence."[187]

Most witnesses warned that Russia will seek to capitalize on divisions and disagreements among countries to weaken NATO. Mr. Byers told the Committee that Russia "is a country that seeks to weaken NATO and NATO countries like Canada."[188] Turkey's decision to purchase Russia's S-400 long-range surface-to-air missiles was also mentioned as a troubling development.[189] Nevertheless, NATO has withstood the test of time, has overcome internal disagreements and disputes, and remains united. Continued political engagement among NATO members will ensure that these foundational values are respected and upheld.[190]

## 10. Public Understanding and Defence Sector Engagement

Another challenge, according to Mr. Fadden, is that "the Canadian public is generally ill-informed" about national security and defence issues, particularly the country's involvement in NATO.[191] Mr. Graham expanded on this point, citing a recent research poll that showed "seven in ten Canadian women were unable to identify NATO by its mission" and that 71% of millennials "are unaware of NATO or its role."[192] In echoing this point, Mr. Baines stressed that, although "the connection between security, peace and prosperity is clear," the next generation of Canadians do not understand the value of NATO and the peace that it has helped sustain since the end of the Second World War.[193]

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184 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg).

185 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

186 Ibid.

187 Ibid.

188 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

189 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

190 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

191 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden)

192 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

193 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines).

He added that "[m]embers of my team based in Toronto [did] some sampling of what [University of Toronto (U of T)] students knew about NATO. We've done this a few times. Within one or two points, it has always been that one out of 25 people knows what NATO is. Very often, 'North American', 'Treaty', or 'Trade' is all that they get through," underlining that "[t]his is U of T as well, not the general population."[194]

As Mr. Baines told the Committee, the threat posed by the public's lack of knowledge about NATO "lies in not appreciating the Herculean efforts undertaken to provide global peace and security, and then, obviously, taking it for granted."[195] He added that, in the context of Russian disinformation campaigns seeking to villainize and weaken NATO, it is important for the public to understand NATO's history and value.[196] Ambassador Buck, Mr. Fadden, Vice-Admiral (Retired) Davidson, Mr. Graham, Mr. Baines, Mr. Huebert and Mr. Moens stressed that the Canadian public is ill-informed on issues of national defence, which includes issues related to NATO, and hinders the Government of Canada's ability to allocate adequate resources to defend against these threats.[197]

Witnesses also said that firms in Canada's defence sector are underrepresented in NATO's procurement programs. Mr. Daniel Verreault, Vice Chair of Canada's delegation to the NATO Industrial Group, noted that only about 726 of the approximately 65,850 companies registered with the NATO Support and Procurement Agency (NSPA) and the NATO Communications and Information Agency (NCIA) are Canadian.[198] This represents roughly 1.1% of the companies registered with the two above mentioned NATO agencies. Janet Thorsteinson, who heads Canada's delegation to the NATO Industrial Group, echoed this assertion, noting that "Canadian industry does not find it easy to participate in NATO activities."[199]

NATO's security environment is thus complex and challenging. The rules-based international order is under threat from a variety of state and non-state actors that are

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194 Ibid.

195 Ibid.

196 Ibid.

197 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham); NDDN, Evidence, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines); NDDN, Evidence, 1st Session, 42nd Parliament, 20 November 2017 (Robert Huebert); and NDDN, Evidence, 1st Session, 42nd Parliament, 20 November 2017 (Alexander Moens).

198 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Daniel Verreault).

199 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

using a combination of conventional and unconventional means to undermine global stability. Going forward, as Mr. Sedra told the Committee, NATO "must remain vigilant in responding and adapting to the rapidly shifting global security environment."[200]

## THE IMPORTANCE OF NATO AND CANADA'S CONTRIBUTIONS TO THAT ALLIANCE

In today's highly complex and unpredictable international security environment, NATO remains important, and continues to provide its members with collective security and stability. Canada and NATO have a mutually beneficial relationship: Canada has much to gain through its membership in NATO, and NATO benefits from the contributions that Canada makes to it.[201] According to Ambassador Buck, "NATO is indispensable to Canada's security and prosperity" and "Canada is an indispensable ally to NATO."[202] Most witnesses who appeared before the Committee during this study echoed this view, and no one believed that NATO has lost its raison d'être or that Canada should no longer be a part of NATO. In describing NATO as a "central pillar of Euro-Atlantic defence and a cornerstone of Canadian defence policy and security since 1949," Mr. Graham said that he expects NATO to "remain a cornerstone of our defence and security policy for the foreseeable future."[203] For many witnesses, the resurgence of Russia and its increasingly aggressive posture in Europe, and the unprecedented increase in instability, are some of the main reasons why NATO remains a relevant political, military and economic alliance, and why it must continue to survive and thrive into the future.[204]

While all of the Committee's witnesses agreed that NATO remains a relevant political, military and economic alliance, and that Canada should continue to make important contributions to it,[205] most held the view that NATO must continue to adapt to new threats as well as a continuously evolving and unpredictable international security environment. Mr. Sedra commented that "[m]ilitaries should be wary of always preparing to fight the last war," and that "NATO must heed this warning and modernize, innovate, and diversify to prepare itself for the coming challenges."[206] Witnesses maintained that NATO's continued effectiveness depends on its ability to do so.

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200 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

201 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

202 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

203 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

204 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

205 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

206 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

## 1. NATO's Evolution and Response to Global Threats

As NATO officials emphasized to the Committee, NATO is the most successful military alliance in history and has maintained peace in Europe for almost 70 years.[207] Mr. Moens emphasized that NATO has been the "most important international instrument for democratic peace" over those seven decades. In his view, NATO's existence is of paramount importance for the democracies of North America and Europe, and helps to ensure that "democracies have the political and military capacity, the military training, the standardization, the command and control framework, and thus the readiness to co-operate in military operations."[208] According to Mr. Fadden, NATO is more than just a military alliance; it is a "strategic alliance" with "a mix of diplomatic, military, and economic issues." In his opinion, NATO's "political responsibilities and aims are as important as the military ones."[209]

However, in order to continue to be relevant today and into the future, NATO must remain vigilant in responding and adapting to the rapid changes in the international security environment. According to Mr. Sedra, it is imperative that NATO "position itself as an adaptive organization that will be indispensable for global security for the foreseeable future." He explained that NATO's "continued relevance depends on its ability to adapt to changing geopolitical and security conditions."[210] Adapting to change is not new to NATO. It fact, NATO has survived the test of time by continually evolving as new threats and global security challenges have emerged, thereby demonstrating its continued relevance. Mr. McRae noted that, "[b]etter than many international organizations, [NATO] has adapted extremely well to the changing international security context." According to him, "[i]t has not stood still. It has changed the way in which it perceives threats, and the way in which it responds to them."[211] Indeed, NATO has had to evolve several times since its creation.

When NATO was founded in 1949, its original purpose was to counter the growing threat posed by the expansion and aggression of the Soviet Union, which – at the time – was extending its control over Central and Eastern Europe. Over the 40 years following its establishment, NATO served as an effective and efficient deterrent against the Soviet

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207 NDDN's visit to Latvia, 21–23 September 2017.

208 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens).

209 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

210 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

211 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

threat. There was a very clear focus on collective defence.[212] NATO faced its first major existential threat with the dissolution of the Soviet Union and the end of the Cold War in the early 1990s. At that time, many people questioned NATO's raison d'être, which had to date been closely tied to the Soviet threat. However, new security challenges rapidly emerged as instability soon developed in parts of Europe due to ethnic tensions and territorial disputes. In particular, the wars in the Balkans in the 1990s were NATO's first major challenge in the post-Cold War era. NATO-led interventions in Bosnia, Kosovo and Macedonia ultimately ended the armed conflicts and ethnic cleansing taking place in the Balkans. Those interventions dispelled any notion of NATO's irrelevance.[213] After the 1990s, NATO adapted and adjusted its raison d'être to changing international security dynamics. The transformative impact of the 11 September 2001 terrorist attacks, in particular, paved the way for NATO to shift its focus from collective defence to out-of-area crisis management and stabilization missions. Such was the case with NATO's first out-of-area operations in Afghanistan (since 2003) and Libya (2011).[214]

However, rapid changes in the international security environment over the last decade have brought about a "new world disorder," compelling NATO to once again adapt to new and emerging threats.[215] The resurgence of Russia as an aggressive and revisionist military power, in particular, has been a source of great concern for NATO. Among other things, Russia's war in Georgia (2008), its illegal annexation of Crimea (2014), its involvement in the conflict in eastern Ukraine (since 2014) and its continued military activities along NATO's eastern flank have raised concern among NATO's allies of Russia's intentions in Central and Eastern Europe, and have heightened tensions between NATO and Russia.[216] At the same time, the crisis in the Middle East and North Africa region since 2011 has also generated instability along NATO's southern flank. In particular, the terrorist threat posed by ISIS has been of grave concern to NATO.[217] According to NATO, these developments have created an "arc of insecurity and instability along NATO's periphery and beyond," with NATO now facing "a range of security challenges and

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212 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens); NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN's visit to Belgium, 19–20 September 2017.

213 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

214 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN's visit to Belgium, 19–20 September 2017.

215 NDDN's visit to Belgium, 19–20 September 2017.

216 Ibid.

217 NDDN's visit to Belgium, 19–20 September 2017. See also: NATO, "Warsaw Summit Communiqué," 9 July 2016.

threats that originate both from the east and from the south; from state and non-state actors; from military forces and from terrorist, cyber, or hybrid attacks."[218]

All of these security challenges and threats have prompted NATO to reinvest in collective defence and deterrence while also combating terrorism, managing crises and projecting stability abroad. At its Lisbon Summit in Portugal in 2010, NATO adopted its current strategic concept, which outlines NATO's current and future priorities. The 2010 Strategic Concept identifies three fundamental core tasks for NATO: collective defence; crisis management; and co-operative security.[219] NATO reaffirmed its commitment to fulfill those three core tasks at its Wales Summit in the United Kingdom in 2014[220] and at its Warsaw Summit in Poland in 2016.[221] As well, at its 2016 Summit, NATO agreed to strengthen its defence and deterrence posture to prevent conflict and deter aggression, to enhance its counter-terrorism activities, and to reinforce its efforts to manage crises and project stability beyond its borders through security partnerships across the Middle East and North Africa region and through both training and building the capacities of regional defence and security forces. That being said, NATO also reaffirmed its support for global peace and stability. As NATO emphasized at its 2016 Summit, it "remains an unparalleled community of freedom, peace, security, and shared values, including individual liberty, human rights, democracy, and the rule of law."[222]

NATO's decision to renew its collective defence and deterrence posture is of central importance to NATO and a direct result of the new security dynamic with Russia. As NATO reported at its 2016 Summit, its "greatest responsibility" is to "protect and defend [its] territory and [its] populations against attack," which is why "renewed emphasis has been placed on deterrence and collective defence."[223] NATO first addressed the new security dynamic with Russia at its 2014 Wales Summit. At that summit, NATO reached consensus on the implementation of a Readiness Action Plan to respond to the rapidly evolving security situation on NATO's borders. The plan consists of a series of measures

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218 NATO, "Warsaw Summit Communiqué," 9 July 2016.

219 The last strategic concept had been adopted a decade earlier, in 1999, well before the terrorist attacks of 11 September 2001 and at a time when NATO had fewer members. See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse); NDDN's visit to Belgium, 19–20 September 2017; and NATO, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization*, November 2010, pp. 7–8. See also NATO, "Strategic Concepts."

220 NATO, "Wales Summit Declaration," 5 September 2014.

221 NATO, "Warsaw Summit Communiqué," 9 July 2016.

222 Ibid.

223 Ibid.

and activities in the air, on land and at sea both to reinforce NATO's principle of collective defence and deterrence capacity and to reassure its Central and Eastern European allies.[224] Two years later, at the Warsaw Summit, NATO agreed to move ahead with the establishment of an enhanced Forward Presence (eFP) along its eastern flank and Baltic Sea region, and a tailored Forward Presence (tFP) along its southeastern flank and Black Sea region. The eFP entails the deployment of four multinational battlegroups in Estonia, Latvia, Lithuania and Poland, which are led by the United Kingdom, Canada, Germany and the United States, respectively. The tFP consists of a multinational brigade in Romania, led by Romania, as well as specific measures designed to strengthen NATO's air and maritime presence in the region.[225]

As Ambassador Buck stated, "NATO has embarked on the most significant reinforcement of its collective defence since the end of the Cold War."[226] As emphasized by Major-General Derek Joyce, DND's Director General, International Security Policy, this re-emphasis on collective defence is in "direct response to the threats that Russia has posed to international peace and security."[227] That said, Ambassador Buck emphasized that "NATO's approach is defensive in nature" and that it directly "responds to Russia's violation of international borders in eastern Ukraine and the illegal and illegitimate annexation of Crimea" in 2014.[228]

This return to the principle of collective defence and deterrence is a major challenge for NATO. It means both NATO and its members must reinvest in many capabilities that have been downsized since the end of the Cold War. For example, NATO officials told the Committee that, over the last 20 years, all NATO armed forces have experienced decreases in defence budgets, personnel and equipment for reasons of austerity and because the threat environment had changed. With the elimination of the Soviet threat in Europe, NATO no longer required the heavily mechanized forces and powerful air defences that it had maintained throughout the Cold War. As a result, most NATO armed forces downsized their fleets of main battle tanks and armoured fighting vehicles, reduced their artillery stocks and decreased their investments in air defences. With NATO actively engaged in out-of-area operations in places like Afghanistan, many NATO

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224 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NATO, *Readiness Action Plan*, 21 September 2017.

225 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NATO, "Boosting NATO's Presence in the East and Southeast," 2 March 2018.

226 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

227 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

228 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

armed forces instead invested in light, deployable, counter-insurgency capabilities. However, with NATO re-shifting its focus to collective defence in response to a renewed Russian threat to European security, there is a shift back to heavily mechanized combat-capable forces. Because of that shift, NATO countries now face the huge challenge of reconstituting their land forces and re-investing in heavy equipment, while at the same time retaining capabilities to conduct counter-insurgency operations. The re-emergence of Russia as a military power is also prompting NATO countries to further invest in their naval and air force capabilities. In addition, they must invest in new and emerging technologies in order to cope with cyber-attacks and the hybrid warfare methods currently used by the Russians, and to address other global threats, such as the proliferation of nuclear weapons and ballistic missiles.[229]

At the same time, NATO remains committed to combating terrorism, managing crises and projecting stability beyond its borders. Since 2011, the international security environment has become increasingly complex as a result of ongoing crises in the Middle East and North Africa region. The wars in Afghanistan, Iraq, Libya, Syria and Yemen have caused an unprecedented humanitarian crisis, resulting in a massive influx of refugees and asylum seekers into Europe. As well, there has been a rise in terrorism. Notwithstanding its recent re-focus on the principle of collective defence and deterrence, all of this instability has prompted NATO to bolster its co-operative security efforts, remain engaged in out-of-area activities and increase its contributions to the global fight against terrorism. NATO's allies have recognized that collective security can best be assured with stable neighbours around NATO's periphery, and that projecting stability to partner countries beyond NATO's borders contributes to making NATO more secure. Central to such efforts is developing partnerships with countries on NATO's periphery and helping them to build their military capabilities so that they can face and withstand threats and security challenges.[230]

Ambassador Buck observed that "[t]his is why NATO is still engaged in Afghanistan its longest running mission" and "why it remains engaged in training Afghan security forces to prevent that country from again becoming a safe haven for terrorism." In her view, it is also "why NATO formally joined the Global Coalition Against Daesh" in Iraq and Syria in 2017, and why it has been "increasing its support for partners across the Middle East and North Africa [region] and beyond to help them enhance their resilience and provide for their own security." Projecting stability is one of the main reasons why NATO has enhanced its co-operative security and military capability-building efforts in places like

229 NDDN's visit to Belgium, 19–20 September 2017.

230 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

Georgia, Iraq, Jordan, Ukraine and other countries around its periphery. NATO has developed partnerships with more than 40 states in Europe, the Middle East, North Africa and elsewhere around the world.[231]

While most of the Committee's witnesses agreed that NATO has stood the test of time, and is adapting to new and emerging threats and security challenges as the resurgence of Russia as a revisionist military power, terrorism, and instability in the Middle East and North Africa region, the general consensus was that more could be done to ensure that NATO remains relevant and effective into the future. Mr. Sedra shared his view that a "big part of where NATO should be going is to think about new ways and new approaches to collective security and common defence." In his opinion, NATO must be preparing to fight the war of tomorrow rather than that of yesterday.[232] During the study, witnesses identified a number of areas of improvement, some of which will be addressed at the upcoming NATO Summit in Brussels, Belgium in July 2018. Making sure that NATO is prepared militarily, and has the right structures, mechanisms and capabilities in place to deal properly with future threats and security challenges, is of paramount importance to NATO.[233] Ambassador Buck noted that "[t]here's been a real sea change since 2014," and NATO must continue to adapt to "meet that change in the security environment."[234]

One major issue for NATO is the need to renew and adapt its command structure to both the new threats and the rapidly changing and unpredictable international security environment.[235] This includes the establishment of a new command for the Atlantic to ensure that the sea lines of communication between North America and Europe remain secure, as well as the creation of a new command for logistics to improve the movement of troops and equipment within Europe.[236] In Major-General Meinzinger's view, it will be important for Canada to make "meaningful contributions" to these new command structures so that there is a "Canadian voice" in them.[237] Another issue that NATO must address is its need to enhance its capacity in the areas of information operations,

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231 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

232 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

233 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

234 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

235 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (Kevin J. Scheid and General (Retired) Raymond Henault).

236 NATO, "The NATO Command Structure," February 2018.

237 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

strategic communications, intelligence and cyber-security, among others.[238] Other issues identified by witnesses include the need for possible improvements to NATO's defence and deterrence posture in Eastern and Southern Europe, and for enhanced efforts in projecting stability and building defence capacity on NATO's periphery.[239]

Some witnesses also spoke about the need to improve NATO's cooperation with like-minded international organizations, such as the United Nations (UN).[240] Although NATO and the UN have been cooperating and working together very closely on operations for several years,[241] some witnesses believed that their relationship could be strengthened. For instance, Mr. McRae held the view that the "connections" between NATO and the UN are "not strong enough." He indicated that, although operations in Afghanistan have demonstrated that NATO and the UN can "work together effectively," there are still "difficulties" with the relationship. As well, he pointed out that NATO's delegation at the UN is very small, and that there is still a "great suspicion of NATO" at the UN. He also commented that more work could be done to tighten the relationship and help ensure greater trust between the two organizations.[242] Likewise, Mr. Dorn believed that more could be done to encourage NATO–UN cooperation. He suggested that NATO could provide certain technologies and procedures to help the UN to modernize its peacekeeping forces and to ensure that they are better equipped.[243]

A number of witnesses also discussed the need to strengthen cooperation between NATO and regional organizations, including the European Union (EU). Some concerns were raised about the EU's recent activation of its Permanent Structured Cooperation on security and defence (PESCO), which seeks to strengthen cooperation in security and defence among EU member states. There were concerns that PESCO might compete with NATO for resources, and that this new EU security and defence arrangement might result in the duplication of capabilities with NATO. Witnesses held the view that NATO should be vigilant and should ensure that there is complementarity and cooperation between NATO and PESCO so that the two organizations are not competing with one

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238 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour).

239 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (General (Retired) Raymond Henault).

240 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

241 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn); NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

242 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

243 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

another and developing parallel structures.[244] Similarly, some witnesses encouraged NATO to forge stronger ties with other regional organizations, such as the African Union and the Organization of American States, in order to develop their capacities for collective security and peace support operations. In their view, having NATO build a "robust and integrated network of regional security organizations" would "strengthen the global collective security system."[245]

In sum, there is a general consensus that more could be done to further adapt NATO to the international security environment of the 21st century. Ambassador Buck reminded the Committee that ensuring that NATO remains relevant and ready to respond to new threats and security challenges is a work in progress, and said:

> We will continue to ensure that NATO is fit for purpose and remains capable of responding to today's and tomorrow's threats as they arise and evolve in complexity. We will contribute to NATO's efforts to project stability in the fight against terror as we build defence capacity in Iraq and as we continue to support reform in Ukraine. We will also continue to identify ways in which to advance issues related to inclusive security at NATO.[246]

## 2. Canada's Contributions to NATO

Canada has been a reliable and strong member of NATO for almost 70 years, and remains committed to NATO and the collective security of NATO countries. Almost all senior Canadian governmental and military officials who appeared before the Committee reiterated Canada's deep commitment to NATO. They told the Committee that NATO matters to Canada, and that Canada matters to NATO. Witnesses repeatedly expressed how important NATO has been for Canada and how the country continues to benefit from its membership in NATO.[247] Mr. Sedra characterized NATO as an "indispensable pillar" of security since the 1940s that has "helped furnish Canada and the West with an unparalleled era of peace and prosperity."[248] According to Ms. Meharg, membership in NATO provides Canada with collective security in an increasingly insecure world, and contributes to the protection of our national sovereignty and the security of Canadians.[249]

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244 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

245 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

246 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

247 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

248 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

249 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg).

Mr. Fadden commented that "[y]ou don't join an alliance just for the sheer joy of it." Instead, "[y]ou join it because it's in the national interest and because it allows the country to protect itself against threats from outside the country." In his view, Canada's membership in NATO is "beyond reasonable debate." He explained that "the basis of a decision on what we do in NATO has to be the threat that Canada faces from the world today," and that the "threat level we face today is at least as significant as during the Cold War. It's very different, but it's as significant as during the Cold War." In his opinion, since Canada is not a superpower and cannot confront all of the threats and security challenges that exist around the world on its own, "maintaining a relationship with NATO and enhancing it makes great sense."[250] Mr. Moens, who held a similar view, suggested that it is "crucial for Canada to have a strong international coalition of democracies with military capability."[251] Ambassador Buck concurred, and said that "[h]aving strong international institutions like NATO is very much in our national interest," adding that "in today's world, trans-Atlantic cooperation is needed more than ever, and NATO is a force multiplier."[252] Moreover, as Lieutenant-General Marquis Hainse, Canada's Military Representative to NATO, told the Committee, participation in NATO has given Canada "influence in a strong political-military alliance that has stood the test of time and has proven its adaptability."[253]

A number of witnesses told the Committee that Canada is an important NATO ally and remains strongly committed to NATO. Major-General Meinzinger explained that "Canada is deeply engaged with NATO," which it "sees as the cornerstone of Euro-Atlantic security." He emphasized that NATO's importance to Canada is reflected in the country's new defence policy *Strong, Secure, Engaged* that was released in June 2017.[254] The policy reaffirms Canada's support for NATO's principle of collective defence, and makes a number of human, financial and material contributions to NATO's efforts to adapt to the evolving global security landscape.[255] In particular, the policy commits Canada to an increase in its defence spending. Spending on defence is expected to reach 1.4% of GDP by 2024–2025,[256] and will bring Canada closer to NATO's guideline – which was agreed upon at the 2014 Wales Summit – that member states should "aim to move towards"

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250 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

251 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens).

252 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

253 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

254 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

255 DND, *Strong Secure Engaged: Canada's Defence Policy*, June 2017.

256 DND, "Canada and the North Atlantic Treaty Organization," briefing note distributed to NDDN for the visit to Belgium, Latvia and Ukraine, September 2017.

spending 2.0% of their GDP on defence within a decade.[257] The policy also notes that, by 2024–2025, Canada will be allocating 32.2% of its total defence spending to major equipment,[258] a commitment that exceeds another NATO guideline – also set at the Wales Summit – that member states "aim to increase" their annual investment on major new equipment to 20.0% or more of their total defence spending.[259] Finally, the policy also indicated a commitment to enhanced military capabilities, with a special emphasis on improving interoperability and ensuring that Canada's armed forces are adequately equipped and capable of supporting their NATO allies and fulfilling their collective defence responsibilities.[260]

Ambassador Buck told the Committee that Canada currently ranks "15th among NATO members" in terms of defence spending as a share of GDP but noted that, "if you look at us per capita ... we're ranked 6th." In her view, Canada makes "a healthy contribution to NATO."[261] Canada currently provides approximately 6.6% of NATO's common-funded budgets, making it the sixth-largest financial contributor to NATO's common funding amongst member states.[262]

Canada is also actively engaged in various NATO programs and activities. A case in point is NATO's Airborne Warning and Control System (AWACS) program. Under that program, NATO owns and operates a fleet of 16 Boeing E-3 AWACS aircraft, which are crewed with personnel from various NATO countries. Witnesses welcomed Canada's February 2018 decision to rejoin NATO's AWACS program, after having withdrawn from it in 2011 for financial reasons.[263] According to Major-General Joyce, Canada's renewed participation in the AWACS program will be of considerable benefit to Canada and NATO, and

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257 NATO, "Wales Summit Declaration," 5 September 2014.

258 DND, *Strong Secure Engaged: Canada's Defence Policy*, p. 46.

259 NATO, "Wales Summit Declaration," 5 September 2014.

260 DND, *Strong Secure Engaged: Canada's Defence Policy*, pp. 43–46.

261 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

262 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien); DND, "Canada and the North Atlantic Treaty Organization," briefing note distributed to NDDN for the visit to Belgium, Latvia and Ukraine, September 2017.

263 Canada was the third largest contributor to NATO's AWACS program in terms of fund and personnel when it withdrew from the program in 2011. See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson and the Honourable Bill Graham); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce). Also See: DND, "Canada Rejoins NATO Airborne Warning and Control System Program," 14 February 2018; NATO, "AWACS: NATO's Eyes in the Sky," 28 September 2017.

demonstrates Canada's renewed commitment to NATO.[264] Another example of Canadian engagement in NATO programs is the NATO Flying Training in Canada (NFTC) program. Established in 2000, the NFTC program is operated by the Government of Canada in cooperation with civilian aerospace industry, and provides world-class pilot training to aviators from NATO and allied countries. Under the program, Canadian aerospace company CAE provides flight training services — including training aircraft, flight simulators, simulator and classroom instruction, and other support services — at the Royal Canadian Air Force's (RCAF's) 15 Wing Moose Jaw, Saskatchewan, and 4 Wing Cold Lake, Alberta. More than 350,000 hours of flight training have thus far been delivered, and more than 1,500 pilots from Canada, Austria, Denmark, Hungary, Italy, Saudi Arabia, Singapore, the United Arab Emirates and the United Kingdom have been trained in Canada since the NFTC program started 18 years ago.[265] In 2010, NATO decided to develop a Ballistic Missile Defence (BMD) capability to protect European territory and population centres, as well as deployed NATO forces, from threats arising from the global proliferation of ballistic missile technology.[266] NATO maintains that its BMD system, which was declared operational in 2016, exists solely for defensive purposes, and is not directed at Russia.[267] NATO's BMD system is commonly funded, which means that all NATO countries make financial contributions, including Canada.[268]

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264 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

265 In May 2018, CAE announced it had "aligned" with KF Aerospace to form SkyAlyne Canada Inc., which it described as "a 50/50 joint venture" between the two companies that will "focus on developing and delivering world-class military pilot and aircrew training in Canada." CAE currently manages the NATO Flying Training in Canada (NFTC) program; KF Aerospace currently manages the RCAF's Contracted Flying Training and Support (CFTS) program. Established in 2005, the CFTS program provides primary flight training as well as helicopter and multi-engine aircraft flight training services and support to RCAF pilots and aircrew. The announcement noted that "the two companies will continue to manage these programs [NFTC and CFTS] as currently contracted, while SkyAlyne focuses on building synergies between the two programs and ensuring the RCAF has access to world-class training to meet current and future needs." The announcement added that SkyAlyne "will draw on the resources and experience of both CAE and KF Aerospace ... to design and develop innovative pilot and aircrew training solutions that can meet the current and future training needs of Canada and [its] allies." See: SkyAlyne, "Press Release: CAE and KF Aerospace Join Forces in SkyAlyne Canada Joint Venture," 1 May 2018. For more information on the CFTS program, see: DND, "Contracted Flying Training and Support" and "Training"; KF Aerospace, "Defence Programs: Military Flying Training — Background." For more information on the NFTC, see: CAE, "NATO Flying Training in Canada (NFTC)," April 2017; DND, "NATO Flying Training in Canada Program Makes History," 16 April 2018; DND, "NATO Flying Training in Canada (NFTC) Program Contract Modification," 25 January 2017; DND, "NATO Flying Training in Canada Program Extended to 2023," 25 January 2013.

266 See: NATO, *Ballistic Missile Defence*, 25 July 2016; NATO, *The Secretary General's Annual Report 2016*, March 2017, p. 39; and Joseph A. Day, *Ballistic Missile Defence and NATO*, NATO Parliamentary Assembly, 7 October 2017, p. 1.

267 See: NATO, *Ballistic Missile Defence*, 25 July 2016; and NATO, *NATO-Russia Relations: The Facts*, 28 February 2018.

268 See: NATO, *The Secretary General's Annual Report 2017*, 13 March 2018, p. 42; NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

Canada also provides personnel to NATO and its bureaucracy. Canada's national delegation to NATO is currently headed by Ambassador Buck and includes Lieutenant-General Hainse. In addition to Canada's national delegation to NATO Headquarters, approximately 245 CAF personnel are posted to NATO billets globally, a number that does not include personnel deployed to NATO operations or staff working within various NATO support agencies.[269] Aside from the approximately 245 CAF members who work "within the NATO construct," another 120 to 130 are also assigned to positions "outside the NATO construct," where they participate in activities in direct support of NATO operations or NATO support agencies.[270] Overall, a total of 435 Canadian civilian and military personnel are currently working in the NATO bureaucracy, which consists of about 17,000 civilian and military personnel worldwide.[271]

Several Canadians are currently serving in leadership positions within NATO, including Lieutenant-General Christine Whitecross, the Commandant of the NATO Defense College in Rome,[272] and Lieutenant-General Christian Juneau, Deputy Commander of the Joint Forces Command in Naples.[273] That said, some witnesses held the view that there are fewer Canadians in senior NATO leadership positions today than in the past. In particular, the Committee was told that General (Retired) Raymond Henault was the last Canadian to be chairman of NATO's Military Committee, which he chaired between 2005 and 2008, and that Vice-Admiral (Retired) Denis Rouleau was the last Canadian to command the NATO fleet (NATO Standing Maritime Group), which he did between 2006 and 2007.[274]

### 3. Canada and NATO Operations

Canada is an important contributor to NATO's operations, and – as emphasized by Ambassador Buck – has "participated and contributed to every NATO mission, operation and activity since NATO's founding."[275] She added that "Canada has respected troops and capabilities, and we deploy highly trained, highly capable troops when NATO needs them."[276]

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269 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien); NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

270 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien).

271 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (Kevin J. Scheid).

272 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Christine Whitecross).

273 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

274 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (General (Retired) Raymond Henault); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

275 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

276 Ibid.

From the 1950s to the 1990s, Canada maintained a strong permanent military presence in Europe, deploying more than 100,000 highly-trained CAF personnel and combat-ready army and air force equipment to Canadian bases in France (1951-1967) and West Germany (1951-1993) as part of its NATO contribution. Canadian army and air force units in Europe took part in various NATO military exercises, and regularly trained with NATO forces as they prepared for war against the Soviet Union and its Warsaw Pact allies, thereby contributing to NATO's defence and deterrence posture in Central Europe.[277] Canada also committed to deploy a Canadian Air/Sea Transportable (CAST) brigade group to Norway rapidly in the event of a crisis between 1968 and 1989, and numerous related training exercises were held in Norway during that period.[278] Canadian naval forces were also actively engaged in the North Atlantic Ocean throughout the Cold War, contributing to NATO's sea control and the protection of communications between Europe and North America.[279] Moreover, Canada has actively participated, and played a key leadership role, in every NATO operation held since the end of the Cold War in the early 1990s, notably those in Bosnia-Herzegovina, Kosovo, Macedonia, Afghanistan and Libya, and this trend continues to this day.[280]

In 2014, NATO responded to Russia's aggression against Ukraine by adopting a series of assurance and deterrence measures meant to reinforce NATO's principle of collective defence, reassure its members in Central and Eastern Europe, and promote regional security and stability. Canada immediately committed to participate in those measures, and contributed army, navy and air force assets and personnel through Operation REASSURANCE. In July 2016, at NATO's Warsaw Summit, Canada's federal government announced that the country would renew its army, navy and air force commitments

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277 At its peak in the late 1950s, more than 10,000 Canadian Army and Royal Canadian Air Force personnel were based in Europe, including an infantry brigade group of approximately 6,700 soldiers in West Germany (Soest) and an air division of twelve squadrons (up to 300 military aircraft) located at bases in France (Marville and Grostenquin) and West Germany (Baden-Soellingen and Zweibrucken). See: Dean Oliver, "Canada and NATO," Canadian War Museum, consulted May 2018; DND, *Canada's Defence Programme 1955-56*, 1955, pp. 16-17; Jasper M. Trautsch, "The History of the Canadian Governmental Representation in Germany," *Zeitschrift für Kanada-Studien*, Vol. 33, No. 1 (2013), pp. 162-165. See also: Sean Maloney, *War Without Battles: Canada's NATO Brigade in Germany, 1951-1993*, Toronto, McGraw-Hill Ryerson, 1997.

278 See: Sean Maloney, "Purple Haze: Joint Planning in the Canadian Forces from Mobile Command to J-Staff, 1975-1991 (Part 1)," *Army Doctrine and Training Bulletin*, Vol. 5, No. 4 (Winter 2002-2003), pp. 62-64.

279 At its peak in the late 1950s, the Royal Canadian Navy had more than 40 warships earmarked for NATO duties in the North Atlantic, and stood ready to increase that number in the event of an emergency. See: DND, *Canada's Defence Programme 1955-56*, p. 17; Oliver, "Canada and NATO." Also see: Geoffrey Till, "The Soviet Navy, the North Atlantic, and Canada," in Margaret MacMillan and David Sorenson, eds., *Canada and NATO: Uneasy Past, Uncertain Future*, Waterloo, University of Waterloo Press, 1990, pp. 85—100.

280 DND, "Canadian Armed Forces Operations in Bosnia-Herzegovina," "Operation ECHO," "Operation FORAGE," "Operation KINETIC," "Operation PALLADIUM," "Canadian Armed Forces Legacy in Afghanistan," and "Operation MOBILE."

under Operation REASSURANCE as part of its contribution to NATO's defence and deterrence posture.[281] Canada agreed, in particular, to lead one of NATO's four eFP multinational battlegroups set up in Eastern Europe, and to contribute CAF personnel and equipment for the purpose. The country also committed to deploy a frigate to undertake operational tasks with NATO's maritime forces in the region, and to deploy an air task force of up to six CF-188 Hornet jet fighters to conduct periodic surveillance and air policing activities in Europe.[282]

Because of those decisions, approximately 450 CAF personnel are currently leading NATO's eFP multinational battlegroup stationed at the Adazi military base in Latvia; it was declared fully operational in September 2017.[283] The battlegroup consists of almost 1,200 troops from seven NATO countries (Albania, Canada, Italy, Poland, Slovakia, Slovenia, and Spain) and operates with Latvian forces.[284] Additional troops from the Czech Republic and Slovakia are expected to join the battlegroup later in 2018. It is the most multinational of NATO's four eFP battlegroups.[285]

Committee members had the opportunity to visit the Canadian-led battlegroup in Latvia around the time that it became fully operational. They observed its high level of combat readiness, interoperability and cohesiveness, as well as the professionalism of its men and women. Not only was it the most multinational of the four NATO eFP battlegroups at the time of the visit, it was also the "heaviest" in terms of armour, fielding main battle tanks, various types of tracked and wheeled armoured fighting vehicles, and artillery provided by the armed forces of Canada, Italy, Spain and Poland.[286] Canada, in particular, contributes Coyote wheeled armoured reconnaissance vehicles, LAV 6.0 wheeled armoured fighting vehicles and M777 howitzers to the battlegroup. The Committee was told that this operation is the first on which the CAF has deployed the LAV 6.0 outside of

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281 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger). For more information on Operation REASSURANCE, see: DND, "Operation REASSURANCE."

282 Office of the Prime Minister of Canada [PMO], "Canada Makes Commitment to NATO Defence and Deterrence Measures," News release, 8 July 2016.

283 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

284 In comparison, as of February 2018, the battlegroup led by the United Kingdom in Estonia consisted of approximately 1,000 troops from the United Kingdom, Denmark and Iceland; the battlegroup led by Germany in Lithuania had more than 1,400 troops from Germany, Croatia, France, the Netherlands and Norway; and the battlegroup led by the United States in Poland comprised more than 1,100 troops from the United States, Croatia, Romania and the United Kingdom. See: NATO, "NATO's Enhance Forward Presence," February 2018; NATO, "NATO Enhanced Forward Presence: 4 Multinational Battlegroups," 28 March 2018.

285 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger); and NATO, "NATO's Enhance Forward Presence," February 2018.

286 NDDN's visit to Latvia, 21–23 September 2017.

Canada.[287] The battlegroup was still being set up at the time of the Committee's visit, and certain capabilities still needed to be strengthened.[288]

Several of the Committee's witnesses referred to Canada's leadership of NATO's eFP battlegroup in Latvia as a strong signal of the country's commitment to NATO and collective defence. In characterizing it as a "significant contribution on many levels," Lieutenant-General Hainse explained:

> First of all, it sends a very strong signal of alliance unity when North American allies send soldiers to deter and defend against attack in Europe. Secondly, the battle group that Canada leads currently includes contributions from six other allies plus the host nation, Latvia. More than any other enhanced forward presence battle group, this shows a commitment to working with other allies and improving interoperability among forces. Finally, this contribution represents the first persistent Canadian military presence in Europe since we withdrew our force from Germany in the early 1990s following the end of the Cold War, and this return to Europe has been noticed by our allies.[289]

Committee members met with NATO, as well as Latvian government and military officials, during its visit to Belgium and Latvia in September 2017. Canada was repeatedly thanked for its strong leadership and involvement with NATO's eFP battlegroup in Latvia.[290] According to Major-General Meinzinger, the 450 CAF personnel currently serving in Latvia form "Canada's largest sustained military presence in Europe since the early 1990s,"[291] when the country closed its army and air force bases in Lahr and Baden-Soellingen, Germany, respectively.[292] Prior to leading the eFP battlegroup in Latvia, Canada maintained a small land task force of between 120 and 220 CAF personnel in Poland as part of Operation REASSURANCE. Overall, more than 1,000 CAF personnel served with that land task force in Poland between 2014 and 2017, participating in more than 35 NATO military exercises held in eight countries throughout Central and Eastern Europe, namely Bulgaria, Estonia, Germany, Hungary, Latvia, Lithuania, Poland and Romania.[293]

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287 Ibid.

288 Ibid.

289 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

290 NDDN's visit to Belgium and Latvia, 19–23 September 2017.

291 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

292 At the end of the Cold War in 1990, the military strength of the bases in Lahr and Baden-Soellingen comprised approximately 8,000 CAF members who were supported by 4,400 civilian employees. According to DND, about 20,000 Canadian military and civilian personnel, and their dependents, lived in and around those two German bases. See: DND, *Defence 90*, 1991, p. 53.

293 DND, "Operation REASSURANCE."

In addition to leading NATO's eFP battlegroup, Canada continues to contribute frigates, on an ongoing rotational basis, to the maritime task force component of Operation REASSURANCE. These warships have been patrolling the North Atlantic Ocean, as well as the Baltic, Black and Mediterranean Seas, with other NATO warships and participating in several NATO exercises and operations in European waters. HMCS *St. John's* is the ninth Canadian frigate deployed on Operation REASSURANCE since 2014, and has been on station since January 2018. Major-General Meinzinger mentioned that "[b]y the end of the current commitment, the CAF will have sustained a frigate consistently in the standing NATO maritime forces for five consecutive years."[294]

Finally, the CAF also continues to contribute, on a rotational basis, air task forces to Operation REASSURANCE; in particular, up to six CF-188 Hornet jet fighter aircraft, along with flight crew, command staff and key support personnel, are deployed . Since 2014, Canada has deployed air task forces to Iceland, Lithuania and Romania under Operation REASSURANCE. The last air task force of four CF-188s and 135 CAF personnel was deployed to Romania from September 2017 to January 2018, where it conducted regional surveillance and air policing activities. According to Major-General Meinzinger, Canada is "committed to continue that great work and will resume air policing duties in Romania later this calendar year."[295]

Altogether, the number of CAF personnel currently deployed on Operation REASSURANCE totals around 700 men and women; approximately 450 with the battlegroup in Latvia and another 250 at sea on the frigate HMCS *St. John's*. However, Major-General Meinzinger told the Committee that the number may increase to about 1,000 CAF members when a Canadian air task force is also deployed on Operation REASSURANCE, as was the case a few months ago when Canada sent CF-188 jet fighters to Romania.[296]

Aside from Operation REASSURANCE, Canada is also making other operational contributions to NATO through its participation in Operation KOBOLD in Kosovo. Operation KOBOLD is Canada's contribution to the Kosovo Force (KFOR) and the NATO-led peace-support operation in Kosovo. Five CAF members are currently serving with KFOR, including the Chief of the NATO Joint Logistics Operation Center. Major-General

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294 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger); DND, "Canada and the North Atlantic Treaty Organization," briefing note distributed to NDDN for the visit to Belgium, Latvia and Ukraine, September 2017; and DND, "Operation REASSURANCE."

295 Ibid.

296 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

Meinzinger noted that, "[a]lthough it is relatively modest, Canada's contribution is recognized and appreciated by our allies."[297]

Canada is also assisting Ukraine with its goal to achieve full military interoperability with NATO by 2020 through Operation UNIFIER. Operation UNIFIER is not a NATO mission; rather, it is the CAF's military training and capacity-building operation to support Ukraine's armed forces. About 200 CAF personnel are participating in that mission, which began in 2015 and has been extended to 2019. More than 5,500 members of Ukraine's armed forces have, to date, been trained by CAF personnel through Operation UNIFIER.[298] Major-General Meinzinger explained that, through this operation, the CAF is "helping to develop the professionalism of the Ukrainian Armed Forces and to modernize and build capacity within their forces, effectively supporting Ukraine's aspiration to achieve NATO interoperability by 2020."[299] Lieutenant-General Hainse affirmed that the CAF is playing a "very strong role in building military capability in Ukraine, a NATO partner."[300]

Since 2014, Canada has also been contributing to the Global Coalition Against Daesh, which NATO officially joined in 2017,[301] through Operation IMPACT. Under Operation IMPACT, CAF members are providing: training, advice and assistance to Iraqi security forces; capacity-building support to regional forces; medical support to coalition forces; and air refueling and tactical air lift assets for air operations in Iraq and Syria. Overall, a maximum of 850 CAF members are currently approved to serve on Operation IMPACT.[302]

When the Committee visited NATO Headquarters in Brussels, Belgium in September 2017, NATO officials repeatedly thanked Canada for its involvement in Operations REASSURANCE, KOBOLD, UNIFIER and IMPACT. Committee members were told that these operations are very helpful to NATO, and that Canada's leadership on those missions is making a difference.[303]

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297 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger); and DND, "Operation KOBOLD."

298 NDDN, *Canada's Support to Ukraine in Crisis and Armed Conflict*, 1st Session, 42nd Parliament, December 2017, pp. 18-21. Also see: DND, "Operation UNIFIER."

299 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

300 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

301 NATO, "NATO leaders agree to do more to fight terrorism and ensure fairer burden-sharing," 26 May 2017.

302 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and DND, "Operation IMPACT."

303 NDDN's visit to Belgium and Latvia, 19–23 September 2017.

## 4. Canada Matters to NATO

Most of the Committee's witnesses held the view that Canada is a well-respected ally within NATO. They emphasized Canada's long history with NATO as a founding member and its evolution within NATO since 1949. As well, they highlighted Canada's leadership within NATO and the high value of its contributions to NATO, and its programs and its operations over the years. They also spoke about the recognized professionalism and high level of interoperability of Canada's armed forces and the degree to which they are respected within NATO.[304]

According to Yves Brodeur of the Canadian Global Affairs Institute, Canada has always been and continues to be a "key player in the Atlantic Alliance." He noted that Canada has been "involved in all NATO operations since the beginning," and that the "professionalism of [its] military is recognized everywhere within NATO and beyond." In his view, Canada has a "lot of credibility."[305] Lieutenant-General Hainse concurred: "We have a strong history of showing solidarity with our allies and of answering the call when it comes, which gives us credibility" and means that "we are taken seriously when we speak."[306] Vice-Admiral (Retired) Denis Rouleau, a former Canadian Military Representative to NATO, explained that this recognition of Canada's credibility means that NATO often looks to Canada for military personnel and, more specifically, for officers and staff to fill NATO's leadership positions at headquarters and in other posts.[307]

Many witnesses pointed out that Canada always "steps up" in terms of contributions to NATO, and highlighted Canada's valuable contributions to NATO's operations, as was the case in Afghanistan, where more than 40,000 CAF personnel served and fought between 2001 and 2014.[308] Witnesses also emphasized Canada's leadership role on

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304 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae and Vice-Admiral (Retired) Denis Rouleau); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck and Lieutenant-General Marquis Hainse); NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Yves Brodeur).

305 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Yves Brodeur).

306 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

307 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

308 Vice-Admiral (Retired) Rouleau told the Committee that, while almost all NATO countries were involved in Afghanistan, "you don't need two hands to account for those involved in real combat operations"; Canada was among them. Unlike many NATO countries, Canada does not put caveats on the personnel and assets it deploys on operations. Many NATO allies impose restrictions so severe that, when their troops are in a theatre of operation, they can perform only a very limited number of non-risky tasks, which creates an unequal burden, as was the case in Afghanistan. Among the NATO forces in Afghanistan, Canada sustained the third-largest death toll, behind the United States and the United Kingdom. In all, 158 CAF members died

NATO's operations. The NATO-led operation in Libya in 2011 was highlighted as an example of an occasion where Canada demonstrated leadership. Of NATO's 28 member states at that time, only a handful chose to participate in the operation and to conduct strikes against Libya; Canada was one of them, and a Canadian – Lieutenant-General Charles Bouchard – led NATO's operations. Canada was present on the water with a frigate, and in the air with a sizeable air contingent, including CF-188 Hornet jet fighters.[309]

According to Ambassador Buck, Canada is well-regarded by NATO, and is seen as a strong and reliable ally.[310] That said, although most of the Committee's witnesses agreed that Canada maintains a high reputation within NATO and expressed satisfaction with the country increasing its commitments to NATO, some of them urged caution and noted that reputations can be quickly tarnished.[311]

## IMPROVING AND STRENGTHENING CANADA'S PARTICIPATION IN NATO

Throughout its history, NATO has demonstrated its ability to evolve, adapt and respond to the increasingly dangerous security environment both on and beyond its borders. Canada has – time and again – proven its ability to meet challenges and defend its NATO allies with effective and valuable contributions. However, as Vice-Admiral (Retired) Davidson pointed out, "the world is not getting any safer."[312] NATO and its members will continue to grapple with the dangerous array of 21st century threats in the years and decades to come, and – as the Committee's witnesses emphasized – Canada needs to do more.

Witnesses identified a number of areas of possible improvement to the Canada–NATO relationship that would strengthen both NATO and Canada's contributions to it. Some emphasized issues relating to: NATO burden-sharing and defence spending; public

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and several thousand more were injured in Afghanistan between 2001 and 2014. See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau). Also see: DND, "The Canadian Armed Forces Legacy in Afghanistan;" Veterans Affairs Canada, "Canada Remembers: The Canadian Armed Forces in Afghanistan."

309 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau and Robert McRae); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (Lieutenant-General (Retired) Charles Bouchard).

310 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

311 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (General (Retired) Raymond Henault).

312 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

outreach, educational awareness and communications; NATO's procurement and defence industrial contributions; NATO's research and development, as well as emerging technologies; cyber defence; Arctic and maritime security; nuclear disarmament; the space domain; Women, Peace and Security; NATO's unity and interoperability; and NATO's centres of excellence.

On balance, witnesses were of the opinion that improving Canada's leadership and contributions in the areas identified above would strengthen NATO and its capabilities, thus ensuring ongoing adaptability and a readiness to respond to the new and emerging threats and security challenges of the 21st century. Witnesses generally urged Canada – as a founding member and valuable ally of NATO – to ensure that NATO has the support and capabilities it needs to operate in this new era of global instability.

### 1. NATO Burden-Sharing and Defence Spending

Almost all of the witnesses who appeared before the Committee during this study addressed the issue of NATO burden-sharing and, more specifically, the continued need to increase defence spending. This issue has been important to NATO for many years, and will likely remain so into the future. Witnesses repeatedly made reference to the collective pledge made at NATO's 2014 Wales Summit that Canada and other NATO allies move towards spending, within the next decade, 2.0% of their GDP on defence and 20.0% of their defence budgets on capital equipment.[313] Reference was also made to ongoing U.S. pressure on NATO allies to meet that 2.0% target.[314] In particular, some witnesses expressed concern about the current U.S. administration's position that it might re-examine its commitment to NATO if NATO allies fail to meet their obligations, a position that is causing uncertainty within NATO at a time when Russia is becoming more aggressive in Europe.[315] In 2017, four of the 29 NATO countries met the 2.0% of GDP target for defence spending, although some – not including Canada – were close to the target.[316]

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313 NATO, "Wales Summit Declaration," 5 September 2014.

314 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Julian Lindley-French).

315 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

316 In 2017, 12 of the 29 countries met NATO's target of allocating 20% of their annual defence spending to new capital equipment, and three others were close to the 20% target, including Canada, at 19.4%. See: NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.

That said, the Committee's witnesses were divided on the issue of whether Canada should strive to reach this target. While some believed that Canada should do so,[317] others had a different opinion.[318] In fact, several witnesses expressed concerns about NATO's guideline that members should strive to spend 2.0% of their GDP on defence, and suggested that comparing defence spending as a percentage of GDP is not a very useful way in which to gauge a nation's contributions to NATO. Mr. Graham explained:

> I'm not a big fan of these metrics of 2%.... GDP goes up and down. These things move around. People can game the system.... While there are agreed upon principles, clearly, some people put some things in, and some people put things out.[319]

In holding a similar opinion, Mr. McRae maintained that a target of 2.0% of GDP allocated to defence spending does not guarantee proper investments in key NATO capabilities or even collective defence.[320] He explained that:

> 2% is fine, but it doesn't guarantee quality defence, nor does it guarantee the commitment on the part of every ally to a collective defence. You need to be able to leave your own territory to assist another ally who has been attacked. Many countries that meet 2% would have a hard time leaving their own home territory to provide that assistance to another country.... The 2% is a pretty rough and not very useful measure of capability and quality.[321]

A number of witnesses were also critical of the manner in which NATO countries calculate their defence spending and report it to NATO. According to them, these countries often include different types of expenditures when calculating their defence spending. For example, unlike Canada, some NATO countries include expenditures relating to their coast guards, border guards, gendarmeries and other paramilitary or national law enforcement organizations when calculating their defence spending, while others also include spending on pensions and veterans affairs.[322] Ambassador Buck emphasized that there is an "agreed methodology to report defence expenditures" to NATO and that those "agreed definitions have remained largely unchanged since 1950s;" however, she admitted that there are some "different interpretations."[323] Regarding

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317 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (David Hobbs and Julian Lindley-French).

318 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

319 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

320 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

321 Ibid.

322 See: NATO, "Defence Expenditure of NATO Countries (2010–2017)," 15 March 2018; and NATO, "Funding NATO."

323 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

Canada, Ambassador Buck noted that the recent Canadian defence policy review revealed that Canada had been under-reporting defence spending to NATO.[324] As indicated in Canada's new defence policy – *Strong, Secure, Engaged* – that was released in June 2017, spending on veterans, as well as on peacekeeping and humanitarian operations, will henceforth be included in calculations of Canada's defence spending.[325] Ambassador Buck emphasized that such spending is "legitimate defence spending according to NATO's definitions." As a result, over the last year, Canada reported "an increase [in defence spending that is] entirely consistent with the NATO guidelines;" the country's defence spending rose from 1.16% of GDP in 2016 to 1.29% in 2017.[326]

While a number of the Committee's witnesses did not believe that Canada should spend 2.0% of its GDP on defence, most agreed that the country should continue to increase its defence spending.[327] Vice-Admiral (Retired) Davidson, in particular, firmly believed that greater investments should be made to strengthen and enhance the capabilities of the CAF and, more specifically, to acquire new weapons systems and military equipment. He warned about the slow disarming of the CAF,[328] and explained:

> [The Canadian navy now has] fewer ships.... The air force lacks the resources and fighter jets for a modern fight. The CF-18s need replacement with modern capability. We are lacking in areas like unmanned aerial vehicles, in surveillance assets, and in ballistic missile defence.... We've also made a commitment at NATO on deployable ballistic missile defence for NATO-deployed forces, and we have zero capability to do that. We lack sufficient army personnel and equipment. Our capacity for urban warfare is limited. We have to rely on our allies for combat search and rescue, for attack helicopters, and for strategic lift, to name just a few. We lack agility, flexibility and technology. We cannot operate meaningfully in the littoral.... We don't have the simple ability to get resources across the shore in a humanitarian situation.... Our shortfalls in capability are simply across the board.[329]

In Vice-Admiral (Retired) Davidson's view, Canada should invest more in the CAF, particularly in its capabilities and equipment. According to him, "[w]e can produce the best-trained military personnel in the world," but "without the equipment, the

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324 Ibid.

325 DND, *Strong Secure Engaged: Canada's Defence Policy*, p. 46.

326 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.

327 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra); NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden and Robert McRae); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

328 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

329 Ibid.

investment, and the resolve to contribute those forces when needed ... we're a hollow force that is unable to sustain a meaningful and persistent contribution."[330] In his opinion, there is no reason why Canada cannot increase its defence spending. As well, Vice-Admiral (Retired) Davidson also said that "[w]e all know Canada is ... a relatively wealthy nation," but "with wealth comes responsibility." Investing in the military is one of those responsibilities, and such investments are an imperative if Canada wants to properly protect its territory and citizens into the future, and to continue making valuable contributions to NATO and other security partners and international organizations around the world.[331]

That said, a number of witnesses held the view that NATO should encourage the use of metrics other than the proportion of GDP allocated to defence spending to compare national contributions to NATO. Ambassador Buck noted that the "2% metric is a way to measure the allies' contribution, but other methods and metrics are possible." She suggested that, while financial contributions are important, "the capability, interoperability, agility, and capacity to deploy troops who are trained and able to do the job is the key thing for NATO and the alliance."[332] According to Mr. Sedra, the time has come to develop a new set of metrics to measure the contributions by individual countries to NATO.[333]

Several witnesses pointed out that, although Canada is not spending 2.0% of its GDP on defence, the country is repeatedly "punching above its weight" in terms of non-financial contributions to NATO.[334] Witnesses repeatedly told the Committee that Canada is a credible and reliable NATO ally that makes valuable contributions, and offers leadership and key capabilities to NATO.[335] In emphasizing that capability is important to NATO, Lieutenant-General Hainse noted that Canada has taken on more responsibilities in recent years through NATO's capability planning process, which is reviewed every four years.[336] He told the Committee that, during the 2015 review, Canada agreed to take on

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330 Ibid.

331 Ibid.

332 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

333 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

334 Ibid.

335 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

336 Lieutenant-General Hainse described NATO's capability planning process as follows: "NATO has a capability planning process that is reviewed every four years. The last review was done in 2015, and the next review will begin in 2019. The capability planning process has five steps. The first is to identify the threat and the environment. The second is to determine the requirements, with regard to the environment. Once the military requirements have been identified, targets are set for each nation to make sure the requirements are adequately met.... Target setting takes into account the country's wealth, military capability, force size, and so forth. This very important element is considered in addition to the 2% metric.... A lot of dialogue

more capability targets than in the past. In particular, Canada was given more than 40 additional capability targets, raising to 222 the total number of targets that the country currently has.[337] The next review will occur in 2019.

## 2. Public Outreach, Educational Awareness and Communications Issues

The Government of Canada and Canada's parliamentarians have a responsibility to explain to Canadians why investing in defence and contributing to NATO matters from a global peace, security and stability standpoint. Doing so means better informing the Canadian public about defence issues and, more specifically, explaining the nature and extent of threats, the requirement for investments in the armed forces, and the importance to Canada – from a national security standpoint – of membership in a political, military and economic alliance like NATO. After all, as Dr. Marie-Joëlle Zahar, Professor at the Université de Montréal, told the Committee, investing in defence and contributing to global stability through participation in an alliance like NATO and international organizations like the UN "is not really a choice for Canada or for any country like Canada whose prosperity and security depend on international peace and security."[338] Key to prioritizing defence and strengthening NATO, and Canada's involvement in it, is the ability to communicate the need to do so to the public, which entails investments in public outreach, educational awareness and communications. Many of the Committee's witnesses held the view than more should be done to educate Canadians about national security and defence issues. They believed that public support for defence and contributions to NATO would possibly rise in Canada if the public was better informed about global threats and the actions of their armed forces in protecting them.[339] The Committee was repeatedly told that politicians, bureaucrats and senior military officials all have a role to play in educating the Canadian public about national

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happens ... to make sure that we are apportioning the right capabilities to the right nation.... The other step is that we make sure that we implement the medium-term targets and then the long-term targets." See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

337 Lieutenant-General Hainse explained the criteria used to select targets for Canada as follows: "The 222 targets are based on two principles: the principle of fair burden sharing and the principle of 'reasonable challenge' to those targets. Fair burden-sharing ... is based on what NATO, as an alliance, thinks that Canada should contribute in terms of its forces and its size and its wealth. The challenge is based on what we think Canada can do in the various time frames." See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Marquis Hainse).

338 NDDN, *Evidence*, 1st Session, 42nd Parliament, 26 April 2018 (Marie-Joëlle Zahar).

339 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Richard Baines); NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham); NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

security and defence issues, and – more specifically – about what NATO does, and why and how Canada contributes to that political, military and economic alliance.[340]

Witnesses generally believed that the Government of Canada and Canada's parliamentarians, in particular, should be more proactive in engaging and informing the Canadian public – in a non-partisan way – about national security and defence issues. According to Mr. Graham, to "some extent," informing Canadians about these issues is "the job of politicians." He explained that there is a "role for public education," and that there is "a lot of responsibility on behalf of elected politicians to try to help educate their constituents."[341] Witnesses also encouraged parliamentarians to be less partisan when dealing publicly with national security and defence issues. Vice-Admiral (Retired) Davidson commented that "[s]omething as important as national defence needs to be developed in a multi-partisan way."[342] Mr. Graham agreed, and said that "national defence" – like foreign policy – is a topic that should "have non-partisan, all-party support for it."[343]

Vice-Admiral (Retired) Davidson also told the Committee that partisanship would be reduced if the federal government were to "share classified and unclassified information in a multi-partisan [parliamentary] committee" that could "then come to agreement on what the right capabilities and direction of defence are" for Canada.[344] An alternative would be an increased openness and willingness by the government to release more information on national security and defence issues. Mr. Fadden explained that "[s]haring more information publicly is possible ... and I'm not talking about operational secrets." He mentioned that the publication of an annual report on global threats and national defence would help the Canadian public to gain a better understanding of related issues.[345] Mr. McRae was among other witnesses who shared this view. He suggested that the federal government regularly release discussion papers on national security and defence issues that better inform the public. In particular, he said:

> It used to be called a green paper.... It's something that the government of the day puts out, not necessarily as a position of the government but rather as a piece that describes the international security environment and the challenges and threats that we face as a

340 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

341 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

342 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

343 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

344 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

345 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

> country. It's a way of supporting debate, which could then be a prelude to broader discussions around the country.[346]

Some witnesses also believed that the federal government could enhance public education about national security and defence issues by providing think tanks and academics with additional funding as a means of fostering more discussions on related issues.[347] Others proposed greater endorsement of university-led efforts to educate students on NATO.[348] Witnesses also encouraged the Government of Canada to give senior CAF officers greater liberty to speak publicly about important national security and defence issues in order to provide the Canadian public with more and better information.[349]

Regarding NATO, Major-General Joyce suggested that the Canadian public's support for NATO would increase if they were better educated about "what NATO does, what we get from NATO, what NATO contributes, and how we contribute to NATO." In his opinion, Canada needs "a strong narrative" that would explain those reasons to the Canadian public. He supported using NATO's newly launched communications campaign known as #WeAreNATO, which was designed and developed specifically to educate people about what NATO is and does.[350] Canada is one of five NATO countries where NATO is rolling out its #WeAreNATO campaign as a pilot project; the others are Poland, Slovakia, Romania and the United Kingdom. According to Mr. Baines, Canada must seize this opportunity as a way to reach out to the Canadian public on the importance of NATO and Canada's contributions to it.[351]

As well, Mr. Baines told the Committee that the NATO Association of Canada has a role to play in educating Canadians; it was founded in 1966 to "explain to Canadians the value of security and Canada's role as a member of NATO." He also said that "[e]very single NATO nation has something like the NATO Association of Canada," with those groups being part of a NATO-wide network called the Atlantic Treaty Association. In fulfilling its mandate, the NATO Association of Canada hosts public events across Canada and publishes more than 1,200 articles annually on different media platforms, including social media. It also has a program for high school students.[352]

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346 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

347 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

348 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

349 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

350 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

351 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines).

352 Ibid.

The Committee also heard about the important work of the NATO Parliamentary Assembly and its educational activities. Mr. Hobbs highlighted some of these activities when he said:

> As an organization, we do a tremendous amount in terms of heightening awareness of what the alliance does, where it does it, and how it does it, and what the peculiar circumstances of each of our nations are.... We have a specific program whereby we are seeking to look at the way NATO is taught academically, and also the way it's dealt with within Parliaments and what lessons can be learned.[353]

Mr. Hobbs added that NATO has been "incredibly supportive" of a recent NATO Parliamentary Assembly initiative to "improve education and awareness about NATO within member countries," and is providing valuable resources for the purpose. In his view, "[w]e are really moving ahead ... in terms of getting the message about NATO down to our publics, our education systems, and our parliaments."[354] Witnesses also spoke about the role played by the NATO Parliamentary Assembly and, more specifically, the Canadian NATO Parliamentary Association in educating Canadians about NATO.[355] According to Ambassador Buck, the Canadian NATO Parliamentary Association is "an absolutely key actor in telling Canadians how important NATO is for Canada."[356] Mr. Hobbs highlighted that, for the first time in 12 years, Canada will be hosting the NATO Parliamentary Assembly's annual session in Halifax, Nova Scotia, in November 2018. He characterized the annual session as an opportunity for the Canadian NATO Parliamentary Association to try and engage Canadians on NATO and why it is important for Canada.[357]

That said, in spite of ongoing public education efforts by such organizations as the NATO Association of Canada and the NATO Parliamentary Assembly, witnesses told the Committee that public education remains a challenge. Mr. Fadden said that, for various reasons, "Canadians don't feel threatened" and remain "generally ill-informed" on national security and defence issues, particularly the country's involvement in NATO.[358] In agreeing, Mr. Graham referred to a recent research poll done for the NATO Council, which revealed that 70% of Canadian women were "unable to identify NATO by its

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353 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

354 Ibid.

355 Ibid.

356 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

357 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

358 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

mission" and that 71% of millennials were "unaware of NATO or its role."[359] This issue is not unique to Canada. All NATO countries are experiencing a similar phenomenon. According to Mr. Baines, a NATO-sponsored research poll conducted in spring 2017 found that, throughout the NATO countries, "people under 30, women, and those without a university education were most ignorant of NATO." According to him, these results demonstrate an urgent need to educate the population in NATO countries like Canada about NATO's mission and its contribution to their security.[360] In his view, Canada must do more "to make sure that NATO, one of the greatest ideas in the history of international peace and security, is understood by the citizens of this country."[361]

### 3. NATO's Procurement and Defence Industry Issues

Several of the Committee's witnesses addressed issues relating to NATO's procurement and defence industrial sector. In general, they felt that more should be done to enhance the procurement of weapon systems and military equipment within NATO, and to ensure that Canadian industry receives a share of NATO's contracts that is representative of the strength and competitiveness of Canada's defence industrial sector. Individual NATO member states are generally responsible for buying platforms (for example, ships, aircraft and tanks), weapons systems and military equipment for their armed forces through their domestic defence procurement systems. That said, NATO procures a wide range of goods and services through NATO common-funded projects for the joint benefit of the entire alliance, such as command-and-control equipment, satellite communications services, information technology hardware and software, and logistics services. Companies from every NATO member states can bid on these common-funded projects.[362]

Witnesses spoke about the need to reform defence procurement processes, not just in Canada, but within NATO as well. According to Martin Hill, honorary chairman of the NATO Industrial Advisory Group, it is fundamental that NATO and its members review and reform the procurement process for "big military systems," such as military aircraft, warships, submarines, tanks and artillery. He commented that times have changed, with the speed of technological change drastically increasing in some fields as a result of the information technology revolution; in electronics, for example, changes occur "about every six months." According to him, the rapid pace of technological change in some

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359 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

360 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines).

361 Ibid.

362 DND, "Guide to Navigating North Atlantic Treaty Organization (NATO) Procurement." Also see: DND, "Defence Purchases and Upgrades Process."

fields is particularly problematic in relation to expensive and sophisticated weapons systems and military equipment, which tend to be acquired for long periods of service. Modern armed forces do not replace their warships or tanks every six months or so. They normally keep them in service for years, if not decades. This longevity is a challenge from a technological standpoint; unless weapons systems and military equipment are regularly upgraded, they rapidly become obsolete. Mr. Hill used main battle tanks as an example. According to him, whereas armed forces "used to buy a tank and that was it," they now have to "upgrade that tank" regularly if they want to keep it operational and up-to-date with the rapidity of today's technological changes. He emphasized that the tank's engines will need to be changed every 15 years, and its electronics every two to three years.[363] Mr. Hill believed that "the procurement process for buying ... defence systems needs to be rethought." In his view, "if NATO and nations get their act together, a look at acquisition reform would be a useful way to go to try to make sure that we procure the systems we need and that we can make sure that they can be upgraded as and when needed."[364]

A number of witnesses also pointed out the long delays, significant cost overruns and other problems that are often encountered with major defence procurement projects, and advocated change. For instance, Mr. Hill said that "[t]here's no doubt in my mind that we are not procuring them correctly;" consequently, "civil servants, military, and industry have somehow got it wrong." In his view, none of those three entities have, thus far, demonstrated that it is capable of finding adequate solutions to defence procurement problems. According to Mr. Hill, the significant delays and cost overruns associated with major defence procurement projects in Canada and other NATO countries are unacceptable. Mr. Hill believed that the time has come for parliamentarians in all NATO countries to come together, examine the way in which defence procurement occurs, and make appropriate changes so that NATO allies approach defence procurement in new and innovative ways.[365]

According to Mr. Fadden, reform of defence procurement in Canada is needed. He told the Committee that, when he was Deputy Minister at DND, "[t]he one topic that regularly had [him] go home and hit [his] head against the wall" was defence procurement.[366] In his opinion, the "greatest contribution to NATO" that Canada could make would be to solve its defence procurement problems. He indicated that, for

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363 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Martin Hill).

364 Ibid.

365 Ibid.

366 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

decades, almost all of Canada's major defence procurement projects experienced delays, cost escalations and other problems. According to him, "[w]e simply haven't dealt effectively with the issue ... of defence procurement," and the federal government should review – and ultimately reform – Canada's defence procurement system.[367] In agreeing with this view, Mr. Graham stated that defence procurement is the "weakest link in ... the whole of our defence posture." While he stated that efforts have been made in recent years to improve and streamline the country's defence procurement processes, he noted that problems continue to affect the large, expensive and high-profile capital equipment projects, most of which still face delays, and costs overruns. In his view, Canada's defence procurement system needs to be reformed in order to provide better results. He stressed that "[t]he system has to be dealt with."[368]

Witnesses told the Committee that Canada's defence industry is under-represented at NATO and that, to date, it has not received NATO contracts commensurate with the strength of the Canadian defence industrial sector. Canadian defence procurement aside, several witnesses spoke about the need to enhance the visibility of Canada's defence industrial sector within NATO in order to achieve greater success in NATO joint procurement. In explaining the serious difficulties that the sector is experiencing in bidding on – and winning – NATO contracts, Ms. Thorsteinson said:

> Canadian industry does not find it easy to participate in NATO activities. It's a long way away. Proximity matters in this world, so we face a greater challenge than perhaps some of our European counterparts. But knowledge is growing within Canada that we are a member of that industrial club too, and that we have a right to participate.[369]

There are essentially two main NATO agencies that undertake procurement: the NATO Communications and Information Agency (NCIA); and the NATO Support and Procurement Agency (NSPA). The NCIA, which is responsible for NATO's communication and information technology projects, provides command, control, communications, computers, intelligence, surveillance and reconnaissance capabilities to NATO.[370] The NSPA, which is the larger procurement agency, is responsible for NATO's armaments and equipment procurement and support, logistics and supply chain projects.[371] The NCIA

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367 Ibid.

368 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

369 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

370 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 March 2018 (Kevin J. Scheid); and NATO, "NATO Communications and Information Agency."

371 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 February 2018 (Patrick Finn and Jennifer Hubbard); and NATO, "NATO Support and Procurement Agency."

and the NSPA are the major entry points for Canadian companies that want to do business with NATO. Together, they issue more than $5 billion annually in solicitations, which presents significant sales opportunities for businesses. Mr. Verreault told the Committee that "Canadian companies have not been as successful as they should have been in winning contracts at NATO."[372] To illustrate this point, he provided data regarding Canadian defence industry contracts with the NSPA and the NCIA:

> There are 65,000 companies registered at the NSPA, and only 700 are Canadian. Of the share of contracts in 2016, Canada received 1%.... At the NCIA in Brussels, 850 companies are registered to do basic order agreements, which is daily business with the NCIA. Of these 850 companies, only 26 are Canadian.[373]

In Mr. Verreault's opinion, Canada is "significantly missing opportunities" in relation to NATO contracts and "should be doing far better;" "remedies are required to rectify the situation."[374]

Many witnesses believed that the federal government could – and should – do more to assist Canada's defence industrial sector, and to encourage domestic businesses to bid on NATO contracts.[375] According to Ms. Thorsteinson, one problem that businesses in Canada's defence industrial sector often face when trying to export their products or services to NATO or to foreign governments concerns the desire by potential customers to know if those products and services have also be been sold, and are being used, within Canada. In her view, many countries believe that if a foreign company has a good defence product or service, its own government will have procured it. She explained that "[t]here is a feeling in other nations that if your government has not bought it, there may be something wrong with what you're trying to sell." Consequently, in her view, "one of the best ways the Canadian government can support industry in this environment is to be what we call the first buyer;" the federal government should buy Canadian defence technology and products whenever possible.[376]

Some witnesses also believed that there should be greater coordination among Canada's national delegation at NATO, DND and Canada's defence industrial sector. According to Mr. Hill, "the more successful nations in the NATO environment" are those where "there is an extremely close relationship between national industry, the national delegation,

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372 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Daniel Verreault).

373 Ibid.

374 Ibid.

375 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

376 Ibid.

and the [Ministry of Defence] in the capital." In his view, if the federal government truly wants to help Canadian businesses secure NATO contracts, it must be more engaged and make sure that Canada's defence industrial sector, national delegation to NATO and DND "are very closely coordinated."[377] As Ms. Thorsteinson emphasized, many NATO allies have "a much more integrated industry-government relationship" than is the case in Canada, and this integration and coordination is vital if the federal government really wants to promote Canada's defence industrial sector at NATO. In her view, this sector and the federal government need to be "more aligned" and "more affiliated;" the "fact that we do not have as integrated a relationship" as other NATO allies puts Canada "at a disadvantage within the NATO environment."[378] In order to facilitate the integration and coordination that are needed, Mr. Verreault suggested that "an action plan to increase Canadian companies' business performance at NATO" is required, and the federal government should develop such a plan as soon as possible.[379]

Several witnesses believed that Canada should increase the number of National Technical Expert (NATEX) positions it has within NATO. Ms. Thorsteinson described such positions at the NSPA and the NCIA as "extraordinary resources for Canadian companies."[380] According to Mr. Hill, an important part of these NATEX positions is to support its country's defence industrial sector in its relationship with those NATO agencies.[381] Canada currently has 1.5 NATEX positions: a full-time position with the NSPA; and a part-time position with the NCIA, which was just created a few months ago.[382] It should be noted that a full-time Canadian NATEX used to be assigned to the NCIA. Patrick Finn, DND's Assistant Deputy Minister (Materiel), said that DND decided to "move the NATEX to the NSPA, where all the materiel group-type work occurs, where we're heavily involved, and where a whole bunch of Canadian companies ... are asking us to do more work."[383] That said, Mr. Verreault stated that consideration should be given to increasing the number of Canadian NATEX positions. He noted that France currently has five NATEX positions embedded at NATO, and is "doing very well."[384] Ms. Thorsteinson shared this perspective, and suggested that it would be "better to have more positions."[385]

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377 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Martin Hill).

378 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

379 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Daniel Verreault).

380 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

381 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Martin Hill).

382 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson and Daniel Verreault).

383 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 February 2018 (Patrick Finn).

384 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Daniel Verreault).

385 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

Witnesses also proposed that the federal government should develop better and more effective ways of marketing NATO to Canadian businesses. To that end, Mr. Verreault suggested that the federal government should develop a communication plan designed to increase the Canadian defence industrial sector's awareness of NATO's procurement processes and opportunities.[386] Similarly, Mr. Hill suggested that the government should encourage and support the sector's participation in studies conducted by the NATO Industrial and Advisory Group (NIAG), which is a consultative and advisory body of senior industrialists from NATO countries that provides support to NATO's Conference of National Armaments Directors (CNAD); the CNAD is the senior NATO committee that has responsibility for promoting cooperation among NATO member states in the field of armaments by facilitating cooperation between NATO and the defence industries of NATO countries.[387] Since the 1970s, the NIAG has conducted more than 225 studies on a range of topics of interest to NATO.[388] Mr. Hill felt that Canadian businesses' participation in NIAG studies would be highly beneficial because these studies "set future requirements" and "future standards." He explained:

> It is extremely interesting for your industry to know what is going on in that area. It helps them to find a product policy strategy for themselves. It also helps them enormously to network with other industries in the domain, and set up the partnerships they will need if they're to be part of the bidding team in the future.[389]

Witnesses highlighted examples of successes by Canada's defence industrial sector in relation to NATO contracts. For example, recently, the NCIA awarded a contract valued at $14.9 million to Canadian-based MDA to deliver NATO's Project Triton, a maritime command, control and information systems project. According to Len Bastien, DND's Assistant Deputy Minister (Information Management), this contract is "an example of the value of return on our investment in exposing Canadian industry" at NATO.[390] Similar opportunities are expected to be available to businesses in Canada's defence industrial sector in the future. In the view of Ms. Thorsteinson, one "absolutely critical" NATO project on which Canada's defence industrial sector might want to bid in the future is the AWACS aircraft replacement project. She expressed hope that Canada's recent decision to rejoin the AWACS project "will lend support and credibility" to the country's

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386 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Daniel Verreault).

387 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Martin Hill); NATO, "Conference of National Armaments Directors (CNAD)," and NATO, "NATO Industrial Advisory Group."

388 NATO Industrial Advisory Group (NIAG), "NATO Industrial Advisory Group (NIAG)," p. 8, document submitted by Martin Hill to NDDN on 22 March 2018.

389 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Martin Hill).

390 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien).

defence industrial sector when bidding begins.[391] Another possible opportunity relates to NATO's Multinational Maritime Multi Mission Aircraft Capabilities project, a joint multinational effort aimed at developing solutions for replacing maritime anti-submarine and intelligence, surveillance and reconnaissance aircraft that are aging. In February 2018, Canada announced that it is joining that multinational project, which now includes eight NATO countries: Canada, France, Germany, Greece, Italy, Poland, Spain, and Turkey.[392]

### 4. NATO's Research and Development and Emerging Technologies

Several witnesses raised concerns about emerging military technologies and their impact on the future of warfare. In their view, NATO must remain vigilant and continually monitor progress made in various technological fields, such as cyber warfare, space technologies, directed energy weapons, nanotechnologies, robotics, artificial intelligence, automated weapons systems and drones. As well, a number of witnesses proposed that NATO should make greater efforts in relation to defence research and development in order to find viable solutions to the challenges posed by some of the aforementioned emerging technologies.

One area of particular concern for witnesses is artificial intelligence and, more specifically, automated weapons systems, or weapons systems that operate autonomously and are not controlled by humans. Mr. Sedra said that he's "very concerned about where we're going on the issue of autonomous weapons systems." According to him, "[w]e don't fully understand the implications and the potential risk factors of this technology." In his view, a "global treaty system" and "control regime" are needed to manage the development and use of autonomous weapons systems worldwide, similar to what has been done with nuclear and chemical weapons. According to him, NATO would be a "powerful voice" to try and "galvanize support to develop a consensus among different states on the issue;" Canada could encourage NATO to do so. He believed that there "has to be some urgency in how we address this."[393]

Some witnesses urged Canada to strengthen its defence research and development relations with NATO partner countries. In particular, Mr. Dorn expressed disappointment that Canada is "under-represented" and not making significant contributions to the NATO

391 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Janet Thorsteinson).

392 NATO, "Canada and Poland Join Six NATO Allies in Developing Next-Generation Maritime Multi Mission Aircraft," 15 February 2018.

393 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

Science for Peace and Security program.[394] He felt that it is "very important" for Canada to "engage" in NATO's Science for Peace and Security program in order to build scientific relationships with key NATO allies and partners. He gave the example of Ukraine, which is a NATO partner country,[395] and emphasized the country's "fantastic scientific history in fields such as engineering and the development of aircraft." In his opinion, by forging stronger defence research and development relations with Ukraine and other NATO partners, Canada could gain a great deal scientifically and technologically.[396]

Mr. Dorn also suggested that, within the next year, Canada should host a NATO Science for Peace and Security information day to explore possible partnerships with Ukraine and other NATO partners.[397]

### 5. NATO and Cyber Defence

Many of the Committee's witnesses expressed concern about the rapid evolution of cyber warfare, and urged NATO and its member states – including Canada – to invest in their cyber defence capabilities. Major-General Seymour explained that "[t]he speed of response in this current environment requires that we be well connected and through digital means and secure means ... have that capability to plug into NATO and be effective." He added that cyber security is "certainly an element of that."[398] According to Mr. Byers, cyber security is an "issue of enormous concern" to NATO, especially now that "Russia is becoming exceedingly adept in this domain."[399] NATO's recent announcement that it would treat cyber as a new domain of warfare – alongside air, land, sea and space – demonstrates the growing importance of cyber defence to NATO.[400]

Canada is actively engaged in the cyber domain. In its 2017 defence policy, the federal government committed to expand and strengthen the CAF's cyber capabilities,[401] which is consistent with NATO's Cyber Defence Pledge of 2016 that all NATO countries should enhance their national cyber defence capabilities and strengthen co-operation in the

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394 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

395 NATO, "Partners."

396 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

397 Ibid.

398 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour).

399 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

400 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill. Graham).

401 DND, *Strong Secure Engaged: Canada's Defence Policy*, p. 56.

cyber domain.[402] In particular, the recent defence policy commits to improve cryptographic capabilities, information operations capabilities, and cyber capabilities.[403] Planned improvements to cyber capabilities include a focus on "cyber security and situational awareness, cyber threat identification and response, and the development of military-specific information operations and offensive cyber operations capabilities able to target, exploit, influence and attack in support of military operations."[404] Major-General Meinzinger identified the defence policy's commitment to introduce a new cyber-operator trade in the CAF, and noted that the CAF has "just started to build that pool of individuals" for that "niche trade." However, in his view, finding the people with the right skills for the job is a challenge because the CAF must compete with the civilian marketplace to find such specialists, and because all organizations are currently looking for cyber specialists to protect their systems and network from hacking and cyber-attacks. Consequently, the demand for such skilled individuals is high.[405] That said, significant efforts are under way to recruit and retain cyber expertise within the CAF.[406]

Commodore Richard Feltham, DND's Director General, Cyberspace, told the Committee that Canada is an active participant in NATO's cyber defence activities, although the "scale of Canada's commitment has not been large" thus far; DND and the CAF have "selected areas of activity that fit well with our strengths and lead to mutual benefits for NATO and for our own interests." One area of contribution pertains to NATO's multinational cyber defence capability delivery project, which involves NATO countries cooperating "to develop, acquire, and maintain military capabilities to meet current security problems, in accordance with the NATO Strategic Concept."[407] Canada has been actively engaged on this project since 2013, and has contributed personnel and financial support. Canada also contributes to NATO's cyber defence through participation in NATO's cyber warfare exercises. As well, since 2005, Canada has been actively involved in NATO's cryptographic capability team and allied cryptographic task force. According to Commodore Feltham, "[w]e have been able to provide leadership and expertise, as well as obtaining valuable insight that has guided our own cryptographic development efforts." He also indicated that "[w]e have been able to build communications and networks that address our own needs and are aligned with

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402 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Commodore Richard Feltham); and NATO, "Cyber Defence Pledge," 8 July 2016.

403 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien).

404 DND, *Strong Secure Engaged: Canada's Defence Policy*, p. 110.

405 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

406 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien and Commodore Richard Feltham).

407 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Commodore Richard Feltham).

secure and reliable communication systems operated by our NATO allies in a cost- and time-effective way."[408]

With a focus on how DND and the CAF plan to be engaged in offensive (i.e. active) cyber operations, as was announced in the 2017 defence policy, Commodore Feltham explained that DND's and the CAF's capabilities to engage in offensive cyber operations remain in a nascent stage.[409] However, Mr. Bastien stated that DND and the CAF currently have "limited cyber capabilities in the active cyberspace today that [they] could, without [Communications and Security Establishment Canada], engage and use to support missions." Current active cyber capabilities include, for example, the ability to "jam a radio, block a telephone, take an internet site down, or block a service provider."[410]

However, Mr. Byers urged caution, and warned Canada and its NATO allies to be "very careful" in the ways that they respond to cyber threats; their actions should not "create an arms race in cyberspace" with the Russians. According to him, "[o]ur actions should be defensive, not offensive, unless we are actually attacked and can attribute that attack back to a state actor." In his view, "a cyber-conflict can escalate out of control very quickly. Therefore, a defensive stance rather than an offensive stance is absolutely necessary here."[411]

Witnesses generally held the view that more should be done to keep Canada and NATO abreast of developments in the realm of cyber warfare. For instance, Mr. Sedra urged Canada and its NATO allies to invest more resources in cybersecurity, and said that "I think we are behind in developing our capacity." While he admitted that "there is movement in NATO to develop cyber-capabilities and to coordinate different member states" in the cybersecurity field, he believed that there "is still a lot of room where more action can be taken." According to him, in the cybersecurity domain, "you always have to be one step ahead of the aggressors." The only way for NATO to remain one step ahead is to increase the resources it allocates in cybersecurity.[412] In highlighting a number of ways in which NATO could become more engaged in the realm of cybersecurity, Mr. Sedra said:

> NATO can be the connective tissue among the various work that all the NATO allies are doing on cybersecurity. It can also be one of the mechanisms to urge the member states

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408 Ibid.

409 Ibid.

410 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien).

411 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

412 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

> to take this more seriously, to push the members to invest in this area. On top of that, NATO can be the area where … thought leadership should happen, where we should be investing in efforts to be at the cutting edge. The key thing is that it brings together, because all the different member states of course have their cyber-defensive and now increasingly offensive capabilities. This is the mechanism whereby we can pool these resources and have a common approach.[413]

## 6. NATO and the Arctic

Canada's Arctic region encompasses 75% of the country's coastlines, more than 40% of its total land mass and in excess of 36,000 islands.[414] The region has always been a central element in Canada's national defence strategy, and DND maintains a significant presence in the North. CAF personnel stationed in the Arctic are responsible for: conducting air, land and sea surveillance and security patrols; undertaking annual sovereignty exercises in the high Arctic, as well as in the western and eastern Arctic; conducting aeronautical search and rescue; and operating and maintaining Arctic military facilities.[415] Canada is a member of the Arctic Council, an intergovernmental forum that promotes cooperation among Arctic nations, and local Indigenous and non-Indigenous communities, on issues of sustainable development and environmental protection.[416] In addition, as Major General Seymour explained to the Committee, Canada participates in the Arctic Security Forces Roundtable, where Arctic and observer nations discuss security issues, including "information sharing, training and readiness, and operations in the Arctic."[417]

Arctic security is also a central component of the Canada–U.S. defence partnership. Through the North American Aerospace Defense Command (NORAD), CAF members collaborate with American officials to monitor and control the North American airspace, and to monitor North America's maritime approaches, which include the continent's northern airspace and maritime approach.[418] NORAD's primary tool for aerospace

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413 Ibid.

414 DND, *Strong, Secure, Engaged: Canada's Defence Policy*, June 2017, p. 79.

415 NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016, pp. 30–32.

416 Arctic Council, *The Arctic Council: A Backgrounder*, 26 May 2017.

417 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major General William Seymour).

418 DND, "Backgrounder: NORAD," 11 September 2014. For more information about NORAD, see: NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016.

surveillance in the Arctic is the North Warning System, which is a network of 11 long-range and 36 short-range radar stations positioned along the shores of the Arctic Ocean.[419]

Canada's new defence policy – *Strong, Secure, Engaged*, which was released in June 2017 – outlines a path to reinforcing the country's presence in its Arctic region. The policy notes that "Canada must enhance its ability to operate in the North and work closely with allies and partners," which includes conducting "joint exercises with Arctic allies and partners" and "strengthening ... situational awareness and information sharing in the Arctic, including with NATO."[420] The goal is to improve surveillance and control of the Arctic region, and to enhance "the mobility, reach and footprint of the Canadian Armed Forces in Canada's North to support operations, exercises, and the Canadian Armed Forces' ability to project force into the region."[421] Mr. Huebert remarked that, in addition, the policy demonstrates that Canada is ready to engage with NATO on "the protection of the Arctic approaches and the North Atlantic approaches."[422] The policy commits Canada to conducting joint exercises and sharing intelligence with long-time Arctic partners and NATO to "support the strengthening of situational awareness and information sharing in the Arctic."[423]

A number of witnesses welcomed the involvement of NATO in the security and defence of Canada's Arctic.[424] They noted that, as the Arctic region becomes accessible, Russia builds its military capabilities and China increases its presence in the Arctic, NATO should help Canada to protect the region. Mr. Lindley-French warned that, in the Arctic Circle, he "can well foresee scenarios in which NATO allies would have to face a serious Russian incursion."[425] In echoing this concern, Mr. Fadden urged Canada to "convince NATO to spend more time worrying about Canada's north as opposed to Norway's north."[426]

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419 NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016, p. 24.

420 DND, *Strong, Secure, Engaged: Canada's Defence Policy*, June 2017, pp. 57, 80.

421 Ibid., p. 80.

422 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

423 DND, *Strong, Secure, Engaged: Canada's Defence Policy*, June 2017, p. 80.

424 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden); NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Julian Lindley-French); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens).

425 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Julian Lindley-French).

426 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

Like Mr. Fadden, Mr. McRae, Mr. Moens and Mr. Huebert thought that Canada should conduct training exercises with NATO in the Arctic.[427] Mr. Huebert commented that Canada participates in NATO's Cold Response military exercises, which were initiated in 2006 and involve some 15,000 troops in Norway's Arctic.[428] Mr. Huebert also expressed his support for the establishment of a NATO centre of excellence on Arctic Security in Canada,[429] and proposed that Canada should take a leadership role if NATO decides to establish "a new command for the northern region," noting that such participation is critical to ensuring that the country is able to share its Arctic expertise with NATO.[430]

A number of witnesses underscored the importance of the Arctic as an area of cooperation. According to Ms. Meharg, the dialogue that takes place on the Arctic Council differs from that which occurs within NATO, in that it is not a "defensive or offensive perspective."[431] She emphasized the importance of using all available platforms "to make sure that we're using or sharing the north such that it contributes to everybody's win in the Arctic."[432] Mr. Sedra reiterated that the Arctic Council effectively encourages cooperation and maintains stability in the Arctic region, recalling that "on search and rescue, the Russians, the United States and Canada work closely together pretty well, despite what we're seeing elsewhere in the world."[433]

Several witnesses mentioned that NORAD is responsible for protecting and securing Canada's Arctic. For example, Mr. Byers stated:

> [I]t's important to underline that there are in fact, from a security organizational perspective, two Arctics. There is the European Arctic, which the Americans regard as part of the U.S. European Command, which is very much a NATO co-operative exercise. There is the North American Arctic, which from an American perspective is NORTHCOM, and from a Canadian perspective a NORAD mission, not a NATO mission. That dividing line goes up Baffin Bay and the Nares Strait, dividing Greenland from North America, in terms of those two different organizational missions.[434]

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427 See: Ibid.; NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Alexander Moens).

428 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

429 Ibid.

430 Ibid.

431 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg).

432 Ibid.

433 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

434 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

Witnesses encouraged Canada to seek improvements to its surveillance and response capabilities in the Arctic. Mr. Byers suggested the purchase of three additional satellites for the RADARSAT Constellation, and re-starting the northern communications and weather project.[435] Mr. Huebert advocated improvements in the situational awareness domain, particularly as regarding the sharing of intelligence. He emphasized that, in the context of Russia resuming its long-range bomber controls and the return of its long-range submarines in the Arctic, "better [intelligence] sharing for underwater surveillance capabilities and above-air surveillance capabilities" is required.[436] In terms of enhancing response capabilities, Mr. Huebert proposed equipping Canada's new surface combatant ships with Arctic and with anti-submarine capabilities. He also mentioned the need for new fighter jet capabilities and greater cooperation with Denmark, Norway, Sweden and Finland in the aerospace domain.[437] Mr. Byers emphasized the importance of recapitalizing the Canadian Coast Guard's icebreaker fleet.[438] Finally, to secure Canada's Arctic, Ms. Charron and Mr. Fergusson reiterated the priority that should be given to modernizing NORAD and the North Warning System. In particular, Mr. Fergusson indicated:

> [T]he immediate priority is the requirement to invest in a modernized, renewed North Warning System. That's where the major capability gap is right now. Along with that, due to the longer range air and sea launch cruise missile capabilities of Russia – and in future China and others – come issues with our ability to detect, deter, and defend against this emerging threat.[439]

### 7. NATO and Maritime Security

During this study, a number of the Committee's witnesses spoke about the need to reinvest in NATO's naval capabilities and to strengthen NATO in the maritime domain. Ms. Moon noted that NATO is a "maritime alliance," and that control of the sea-lines of communication between North America and Europe, as well as freedom of movement in the Atlantic Ocean, are "vital" from a security standpoint.[440] She commented that, while "the transatlantic link is vital to all member states," it "has long been neglected." In recent years, NATO's navies have been significantly reduced in size, mostly due to the increasingly high costs and technological sophistication of modern, state-of-the-art

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435 Ibid.

436 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

437 Ibid.

438 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

439 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

440 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

surface warships and submarines. According to her, as a result, NATO's fleets "have shrunk and the capability gaps have increased;" consequently, the United States is now the only NATO country with "truly full spectrum capability" at sea.[441]

Ms. Moon explained that this downsizing of NATO's fleets has occurred at a time when threats at sea are increasing, including maritime terrorism, piracy, the global proliferation of submarines, and the rapid expansion and rearmament of naval forces in revisionist states like China, North Korea and Russia. In her view, this trend is problematic considering the importance of the maritime domain for the world's globalized economies. To demonstrate why the maritime environment is so "crucial,"[442] she said:

> Currently 95% of trade is conducted on sea routes, 80% of hydrocarbons are transported by sea, and 95% of Internet traffic goes through undersea cables.... 80% of the maritime trade passes through eight choke points, three of which are crucial to NATO in the Mediterranean [Sea], the Black Sea, and the Red Sea. The figures show that freedom of the seas is a driver of global economic interests.... With 80% of the world's population living within 60 miles of the coast, and 75% of the world's major cities being littoral, plus the use of sea lanes growing at 4.7% a year, the maritime domain is only becoming more critical to the alliance.[443]

In Ms. Moon's view, the time has come to reinvest in NATO's naval forces and their capabilities in order to control the sea lanes, and to ensure that the maritime interests of NATO and its member states are protected. She emphasized that surface warships and submarines "serve as an essential enabler of deterrence and as demonstrators of political will and power." In her opinion, they also provide "capacity to manage crises by providing expeditionary capabilities, sea control and denial, and logistical support to amphibious operations, including the enforcement of embargoes and no-fly zones, and the provision of humanitarian assistance." For these and other reasons, she believed that NATO's navies should reinvest in their naval assets and strengthen their capabilities.[444]

From a Canadian perspective, a number of witnesses spoke about the small size of the Royal Canadian Navy (RCN). Vice-Admiral (Retired) Davidson said that "[o]ur navy is ... ridiculously small for a G7 nation," and emphasized that it is comprised of 12 frigates and four submarines, as well as 12 maritime coastal defence vessels. In his opinion, this naval force is small for a country like Canada, which borders the Arctic, Atlantic and

441 Ibid.

442 Ibid.

443 Ibid.

444 Ibid.

Pacific oceans, has the world's longest coast line and wishes to "contribute to deployed operations around the world."[445] Moreover, Vice-Admiral (Retired) Rouleau stipulated that Canada's naval fleet is aging and needs to be recapitalized. He noted that none of the original deadlines set when the National Shipbuilding Strategy was released in 2010 have been met, and that all of the ship projects have been delayed.[446] In his view, eight years later, "we have a few [Arctic/Offshore Patrol Ships, or AOPSs] that are coming off the line ... but that's about all we have." He felt that the RCN is not going to have the two Joint Support Ships "for quite a few years," and mentioned that construction of the 15 Canadian Surface Combatants to replace the destroyers and frigates has not yet started; it is expected to begin once all five AOPS have been delivered. He indicated that the construction of those warships is "going to take time as well."[447]

That said, the RCN has encountered capability gaps with the recent retirement of its four destroyers and two replenishment ships. While stop-gap measures have been introduced to help limit the impact, the loss of capability to refuel at sea and to defend against air attacks, in particular, has decreased the readiness of the RCN.[448] Vice-Admiral (Retired) Rouleau suggested that, if Canada wants to "continue to be able and willing to answer the NATO call," efforts to recapitalize the RCN should be accelerated.[449]

Additionally, some witnesses highlighted an urgent need to address the replacement of Canada's submarine fleet, emphasizing the importance of those assets to Canada's naval forces.[450] In the view of a number of witnesses, because of the proliferation of submarines worldwide, Canada should reinvest in its anti-submarine warfare capabilities.[451]

Aside from emphasizing the growing need for Canada and its NATO allies to recapitalize their naval forces, witnesses encouraged Canada to devote greater strategic attention to developments in the North Atlantic Ocean. In their view, of central importance is the growing need to protect NATO's sea-lines of communication between North America and Europe in that oceanic region because of Russia's naval developments. Although the North Atlantic was of high strategic interest to NATO during the Cold War, its importance declined after the Soviet Union's collapse in the early 1990s.

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445 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

446 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

447 Ibid.

448 NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017.

449 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

450 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

451 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron).

Since the end of the Cold War, NATO's focus on naval co-operation moved to the periphery, and operations in the Persian Gulf, the Arabian Sea and off the Horn of Africa became of greater interest; however, in response to Russia's aggression in Europe, the focus has recently shifted to the Mediterranean Sea, the Black Sea and the Baltic Sea. The resurgence of Russia as a military power and the expansion of the country's naval forces are prompting NATO to re-consider the North Atlantic as an area of strategic importance.[452] Over the last decade, Russia's military activities in the North Atlantic region have been growing. For example, Mr. Huebert emphasized Russia's resumption of long-range bomber activities in the Arctic and North Atlantic regions since 2007, as well as the return of Russian long-range submarines in the region since 2008.[453] Moreover, Ms. Charron and Mr. Fergusson stressed that new generations of Russian naval capabilities, including increasingly sophisticated long-range cruise missiles, pose a growing maritime threat in the North Atlantic region[454]; consequently, NATO has a growing strategic interest in protecting sea-lines of communication in the North Atlantic and in monitoring Russia's naval activities in the region both above and under water. According to Ambassador Buck, "[w]e know that Russia is investing heavily in military modernization, including improving capabilities to operate in the North Atlantic. That is why NATO agreed at the 2016 Warsaw summit to strengthen NATO's maritime posture and situational awareness in the North Atlantic." She added that "work is ongoing with NATO to fulfill this commitment" and that there is a "key role for Canada to play in this issue."[455]

A number of witnesses suggested that Canada should demonstrate leadership within NATO by strengthening its naval activities in the North Atlantic and by spearheading NATO naval co-operation and surveillance efforts in the region.[456] While some commented that Canada should encourage NATO's naval forces to participate in naval exercises in Canadian waters,[457] others urged Canada to conduct more naval patrols in neglected areas of the North Atlantic. Ms. Charron, in particular, said that Canada and its NATO allies should focus on the so-called Greenland–Iceland–United Kingdom gap in the North Atlantic, which she described as the "very busy sea-line of communication in the North Atlantic that was notorious during the Cold War for enemy [submarine] activity" and the "main sea-line of communication for Russian vessels travelling from the Arctic to

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452 Ibid.

453 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

454 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (James Fergusson).

455 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

456 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron).

457 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

the North Atlantic." She considered the gap to be a "neglected area of strategic significance" that NATO has not been monitoring as closely as it did in the past.[458] In agreeing that the gap is an area of growing interest to Canada and NATO, and should be monitored, Ambassador Buck said that, "[w]here we see the heightened risk is in the North Atlantic." She made particular mention of "the Greenland-Iceland-UK corridor, where we see Russia starting to project its forces from its own Arctic."[459]

### 8. Nuclear Proliferation and Nuclear Disarmament

Three NATO countries possess nuclear weapons: the United States; France; and the United Kingdom. Thus, alongside conventional and missile defence forces, nuclear weapons are a core component of NATO's overall capabilities for deterrence and defence.[460] NATO's current nuclear policy is based on its 2010 Strategic Concept, which underscores that – alongside conventional capabilities – nuclear weapons are the core elements of NATO's deterrence posture. According to the Strategic Concept, "[a]s long as nuclear weapons exist, NATO will remain a nuclear alliance."[461] The nuclear policy was reinforced in NATO's 2012 Deterrence and Defence Posture Review, which notes that:

> [W]hile seeking to create the conditions and considering options for further reduction of non-strategic nuclear weapons assigned to NATO, Allies concerned will ensure that all components of NATO's nuclear deterrent remain safe, secure and effective for as long as NATO remains a nuclear alliance.[462]

NATO also maintains that it is committed "to the goal of creating the conditions for a world without nuclear weapons."[463]

In July 2017, amid growing concerns about the proliferation of nuclear weapons, and North Korea's nuclear and ballistic missile testing, the United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards their Total Elimination adopted the *Treaty on the Prohibition of Nuclear Weapons*. The treaty seeks to prohibit the development, testing, production, manufacturing, acquiring, possession,

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458 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron).

459 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

460 NATO, *NATO's Nuclear Deterrence Policy and Forces*, 3 December 2015.

461 Ibid.

462 Ibid.

463 Ibid.

stockpiling, use of, or threat of use of nuclear weapons.[464] NATO's North Atlantic Council responded with a statement suggesting that the *Treaty on the Prohibition of Nuclear Weapons* "is at odds with the existing non-proliferation and disarmament architecture."[465] In particular, the North Atlantic Council said that the treaty

> disregards the realities of the increasingly challenging international security environment. At a time when the world needs to remain united in the face of growing threats, in particular the grave threat posed by North Korea's nuclear programme, the treaty fails to take into account these urgent security challenges.[466]

In expressing their disappointment with NATO's position on the *Treaty on the Prohibition of Nuclear Weapons*, a number of the Committee's witnesses called on NATO to lead nuclear disarmament efforts. In the view of Mr. Dorn, "[t]he only sane approach to end the mutual assured destruction, or MAD, strategy of nuclear deterrence is nuclear abolition, so NATO should drop its faith in nuclear weapons as the 'supreme guarantee' of peace."[467] Ms. Mason suggested that NATO is in a position to "lead globally" on issues of disarmament, reasoning that if NATO were to discard its nuclear weapons, other countries would hesitate to acquire such weapons.[468] Nevertheless, she recognized that such a decision would be challenging for NATO, and proposed – as a "powerful" first step – that NATO could change its nuclear posture from "flexible response to a very clear declaration of no first-use."[469]

Some witnesses urged Canada to take a leadership role within NATO on the issue of disarmament by signing the *Treaty on the Prohibition of Nuclear Weapons*. Ms. Mason commented that:

> [Canada has a] legal obligation under article VI of the [Non-Proliferation Treaty] to begin the process ... of signing and ratifying the [*Treaty on the Prohibition of Nuclear Weapons*] by absenting ... from NATO's nuclear doctrine and beginning a dialogue within NATO with the aim of convincing other non-nuclear weapon states in NATO to similarly

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464 Canada did not participate in these negotiations. See: United Nations [UN], "UN conference adopts treaty banning nuclear weapons," UN News, 7 July 2017; and UN, *United Nations Conference to Negotiate a Legally Binding Instrument to Prohibit Nuclear Weapons, Leading Towards Their Total Elimination*, 16 February, 27–31 March, 15 June–7 July 2017.

465 NATO, "North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons," News release, 20 September 2017.

466 Ibid.

467 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

468 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason).

469 Ibid.

> renounce NATO's unnecessary, dangerously provocative, and counterproductive nuclear posture.[470]

As a first step towards ratifying the *Treaty on the Prohibition of Nuclear Weapons*, Ms. Mason said that Canada – like Norway – should disassociate itself from NATO's nuclear posture with a "NATO footnote," which allows individual NATO countries to "absent themselves from particular aspects of the [nuclear] policy."[471] Mr. Byers agreed, adding that he "sees no legal barrier to Canada signing and ratifying the nuclear prohibition treaty and remaining a full active member of NATO."[472] In addition, he proposed that Canada should declare itself a "nuclear-weapons free zone" because it does not have nuclear weapons on its territory.[473]

Ambassador Buck commented that Canada cannot sign the *Treaty on the Prohibition of Nuclear Weapons*; doing so would be incompatible with NATO's principle of collective defence. She added that Canada's ratification of the treaty would render the country unable to support NATO's nuclear-sharing arrangements.[474] She said:

> The *Treaty on the Prohibition of Nuclear Weapons* goes much further than simply banning the possession of nuclear weapons on a nation's own soil. It prohibits a range of activities – the transfer, deployment, stationing, or stockpiling of nuclear weapons under any circumstances. Also, it broadly prohibits any party to the treaty from assisting, encouraging or inducing another state to engage in prohibited activities.[475]

Nevertheless, Ambassador Buck and other witnesses recognized Canada's long history as a leader in disarmament efforts, and suggested that the country should continue to lead in this regard. Mr. Graham highlighted that "Canada has been a strong proponent of denuclearization,"[476] while Ms. Mason noted Canada's leadership in the establishment of the comprehensive nuclear test ban treaty.[477] Ambassador Buck said that "Canada is actually leading one of the most viable channels to move ... disarmament forward, the fissile material cut-off treaty."[478] Mr. Sedra suggested that Canada should work towards

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470 Ibid.

471 Ibid.

472 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers).

473 Ibid.

474 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

475 Ibid.

476 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

477 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Peggy Mason).

478 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

strengthening the global arms control regime in order "to prevent states like North Korea, Iran, and others from acquiring nuclear weapons, but at the same time working with major states like Russia and the United States to reduce their stockpiles."[479]

Several witnesses cautioned against Canada taking a leadership role in nuclear disarmament in the current global security environment. Vice Admiral (Retired) Davidson asserted that, "as abhorrent as nuclear weapons are, their presence has undoubtedly contributed to global security."[480] Mr. Hobbs and Mr. Huebert believed that pursuing disarmament is not appropriate in the current complex security environment.[481] Moreover, Mr. Hobbs noted that, although disarmament efforts should not be discounted completely, NATO's current priority "is to make sure that you can deter, and if necessary, defend."[482] Mr. Huebert added that, with worsening relations between Russia and NATO, "the effort is better spent trying to develop new ways to ensure that the Russians understand our commitment to the ongoing issue of deterrence."[483]

## 9. NATO and the Space Domain

NATO's military operations and a number of its advanced weapons systems – including the AWACS, BMD system and the Alliance Ground Surveillance System – rely on space-based technology to operate. As such, the space domain is of great significance to NATO. According to Ms. Moon, NATO "has no official space policy, but has released an allied joint doctrine for air and space operations."[484]

Canada's new defence policy – *Strong, Secure, Engaged* – acknowledges the growing range of threats to Canada's space assets, but indicates that Canada "remains fully committed to the peaceful use of space...."[485] The policy commits Canada to "promoting the military and civilian norms of responsible behaviour in space required to ensure the peaceful use of outer space."[486]

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479 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

480 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

481 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Robert Huebert); NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

482 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

483 NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Robert Huebert).

484 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

485 DND, *Strong, Secure, Engaged: Canada's Defence Policy*, June 2017, p. 57.

486 Ibid.

Ms. Moon told the Committee that, given the proliferation of new actors and threats in the space domain, NATO "should now be looking to consolidate" its space policy.[487] In her report for the NATO Parliamentary Assembly, Ms. Moon suggested that "NATO is well-positioned to strengthen deterrence in space," and called for a NATO-wide approach to "enhance resilience and deter any threat to its space-based capabilities."[488] She commented that, given the operating costs, NATO should focus on cooperation in space and "push for some kind of space code of conduct."[489]

Regarding Canada's role in the space domain, Mr. Byers urged Canada to acquire three additional satellites for the RADARSAT Constellation to improve the country's space-based surveillance capabilities.[490] He added that Canada should re-start the northern communications and weather project, which would involve the development of satellites capable of constant tactical communication, weather imaging and weather monitoring in the Arctic.[491]

### 10. Women, Peace and Security

Ms. Moon remarked that, "as the North Atlantic Treaty was being signed [1949], women were leaving the many vital roles that they had played in the armed forces during the Second World War."[492] The recognition of women's role in global peace and security did not return to the political agenda until 2000, when United Nations Security Council Resolution (UNSCR) 1325 on Women, Peace and Security was adopted. As Ms. Moon explained, UNSCR 1325 "encouraged member states to involve women and integrate a gender perspective in multilateral security initiatives such as peace settlements, peace missions, and disarmament, demobilisation and reintegration programs."[493] Subsequent UNSCRs 1820, 1888, 1960, 2106, 2122 and 2422 added a perspective on sexual violence

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487 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon).

488 Madeleine Moon, *The Space Domain and Allied Defence*, NATO Parliamentary Assembly, 8 October 2017, p. 8.

489 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2018 (Madeleine Moon); and Madeleine Moon, *The Space Domain and Allied Defence*, NATO Parliamentary Assembly, 8 October 2017, p. 10.

490 NDDN, *Evidence*, 1st Session, 42nd Parliament, November 2017 (Michael Byers). The RADARSAT Constellation mission involves the development of a three satellite configuration whose primary purpose is to provide daily assessments of Canadian territory and maritime approaches. For more information, see: Canadian Space Agency, *RADARSAT Constellation*, 30 March 2017.

491 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Michael Byers); and Canadian Space Agency, *Polar Communication and Weather Mission*, 20 June 2014.

492 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2017 (Madeleine Moon).

493 Ibid.

in armed conflict, women's roles in post-conflict recovery, the differential impact of conflict on men and women, and the "integration of gender-based analysis and perspectives into policy-making, operational planning and missions."[494]

Ambassador Buck emphasized that NATO is committed to implementing the United Nations' Women, Peace and Security agenda, and to increasing women's participation in global peace and security.[495] This commitment involves working towards greater gender balance at the civilian and military levels within NATO, as well as incorporating "gender perspectives within the analysis, planning, execution and evaluation of its operations and missions."[496] In 2012, NATO's Secretary General appointed a Special Representative for Women, Peace and Security to serve as the point of contact for NATO's gender-related work. As well, NATO's Office on Gender Perspectives and its Committee on Gender Perspectives have been established to promote the incorporation of gender perspectives "in the design and implementation, monitoring and evaluation policies, programmes and military operations."[497] Ambassador Buck indicated that mandatory training on gender issues occurs prior to deployment on NATO operations.[498] According to the NATO Secretary General's 2017 annual report, in 2016, 96% of NATO countries "included gender-elements in pre-deployment and/or exercises," and 78% included gender issues in their operational planning.[499] Ms. von Hlatky mentioned that NATO has 440 trained female and male gender advisors, 33 of whom are deployed on NATO missions. She emphasized the importance of "mixed teams of gender advisers and gender focal points" to ensure shared responsibility for implementation of the United Nations' Women, Peace and Security agenda.[500]

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494 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

495 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NATO, *Women, Peace and Security: NATO, UNSCR 1325 and Related Resolutions*, 9 January 2018.

496 See: NATO, *Women, Peace and Security: NATO, UNSCR 1325 and Related Resolutions*, 9 January 2018; NATO, *Gender Balance and Diversity in NATO*, 16 November 2011; and NATO, *Gender Perspectives in NATO Armed Forces*, 9 November 2017.

497 NATO, *Women, Peace and Security: NATO, UNSCR 1325 and related Resolutions*, 9 January 2018.

498 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

499 NATO, *The Secretary General's Annual Report 2017*, 15 March 2018, p. 84.

500 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky). NATO has also implemented a number of projects designed to engage experts in the field and partners nations in promoting the UN's Women, Peace and Security agenda, including through its Trust Fund projects and through NATO's Science for Peace and Security programme. See: NATO, *Women, Peace and Security: NATO, UNSCR 1325 and related Resolutions*, 9 January 2018.

Although Ambassador Buck recognized that "NATO has come a long way in implementing gender perspectives in its public outreach, pre-deployment training, and partner education," she stressed that "there's more to do."[501] Many witnesses remarked that NATO's implementation of the United Nations' Women, Peace and Security agenda lags behind that of both the United Nations and many NATO countries, including Canada.[502] Ambassador Buck pointed to the overall decline in the number of women employed by NATO in recent years, but highlighted the appointment of several women to senior positions, including in the first woman deputy secretary general and the first woman commander of the NATO Defense College, as well as her appointment as Canada's first woman ambassador to NATO in 66 years.[503] According to Ms. von Hlatky, 26% of civilians employed at NATO are women; at top senior levels, 0% are women, while 16% are women at lower senior levels. She indicated that these proportions are significantly lower among the military staff at NATO Headquarters, where 7% of employees are female.[504] Ambassador Buck noted that, since 1999, NATO has had only a 4% increase in the number of women in allied militaries, putting the total at just under 11% in 2016. Of those deployed on NATO operations – as Ms. von Hlatky noted – only 6% are women.[505]

Several witnesses explained that the multinational nature of NATO complicates implementation of the United Nations' Women, Peace and Security agenda. Ms. von Hlatky explained that, because of cultural differences among nations, not every NATO member state has the same understanding of gender or appreciation for the value of incorporating gender perspectives in NATO's work.[506] In reiterating this point, Ms. Moon stated that, "in any alliance, you are only able to go as fast as your slowest member."[507] Ms. von Hlatky highlighted the additional challenge that "some officials view gender as the specialised purview of ... 'gender experts' within the NATO structure," which prevents the integration of policies across NATO.[508] Mr. Dorn commented that:

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501 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

502 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

503 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

504 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

505 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

506 Ibid.

507 NDDN, *Evidence*, 1st Session, 42nd Parliament, 29 March 2017 (Madeleine Moon).

508 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

> NATO has a history of being a macho organization that prides itself on the ability to use force and on being capable of using force. It takes a cultural shift from that to see that integrating women will keep you an effective fighting force and actually increase your capacity to do many other things, including nation-building.[509]

Ms. von Hlatky identified a growing recognition in academic and policy circles that gender analysis can be a valuable early warning indicator for conflict, and that ignoring women's voices has led to "an incomplete social picture in the operational context where we send our troops."[510] She emphasized that "gender awareness impacts every facet of your work, whether that's working within your unit or being deployed abroad."[511]

Ambassador Buck and Ms. von Hlatky indicated that Canada is considered a leader at NATO in the area of gender equality. Canada was among the first NATO countries to remove all barriers to the participation of women in the armed forces.[512] In addition, in the view of Ms. von Hlatky, Canada's development of gender-based analysis tools, the focus on diversity in the country's new defence policy, the appointment of gender advisors within the CAF, and recent developments under Operation HONOUR have brought "diversity standards and gender literacy to a higher level" within the CAF.[513] She emphasized that these efforts provide "a firm basis on which to establish Canada as a leader and a norm setter when it comes to gender in security and defence, to show how it can improve policy-making and operational planning tailored to the needs of NATO objectives and missions."[514]

Several witnesses told the Committee that Canada is committed to promoting the United Nations' Women, Peace and Security agenda at NATO. Ms. von Hlatky and Lieutenant-General Christine Whitecross, Commandant of the NATO Defense College (NDC), recognized Ambassador Buck's consistent efforts to promote Women, Peace and Security issues at all levels of NATO, including at the North Atlantic Council.[515] Ambassador Buck highlighted the efforts of Lieutenant-General Whitecross in

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509 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 November 2017 (Walter Dorn).

510 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

511 Ibid.

512 Ibid.

513 Ibid. See also DND, "Operation HONOUR."

514 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

515 Ibid.

implementing elements of the Women, Peace and Security agenda within the NDC curriculum.[516] Lieutenant-General Whitecross added that:

> [C]onsistent with NATO's acknowledgement that gender perspectives are an important consideration – in the long-term to achieve gender equality, and in the short term to help commanders at all levels make decisions to achieve operational effectiveness – general perspectives will be accounted for in all three NDC missions of education, outreach and research.[517]

In her role as NDC's Commandant, Lieutenant-General Whitecross appointed the NDC's first gender advisor, is working on bringing gender-based analysis to NDC, and continues to encourage more participation by women in the NDC's courses and on its staff.[518] She also highlighted that gender perspectives "consider the needs of and impacts of men and women, boys and girls, noting that the word gender itself no longer has a binary meaning."[519]

Regarding NATO's procurement activities, Jennifer Hubbard, DND's Director General of International Industry Programs and Chair of the NSPA's Supervisory Board, mentioned that she works to ensure gender diversity in the recruitment of leadership within the NSPA, and to "support inclusiveness and diversity" through her work at DND.[520]

Ambassador Buck pointed out that, at the July 2018 NATO Summit, NATO is expected to announce an increase in its commitment to implementing the United Nations' Women, Peace and Security agenda.[521] She noted that Canada wishes to see an increase in "the number of women in allied militaries and in international deployments, building partner nations' defence capacity to implement UNSC Resolution 1325, and increasing the number of women in NATO staff."[522]

In line with UNSC Resolution 1325, a number of witnesses urged Canada to do more to promote the United Nations' Women, Peace and Security agenda at NATO. Ms. von Hlatky suggested that Canada should become a global leader in gender training, and

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516 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

517 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Lieutenant-General Christine Whitecross).

518 Ibid.

519 Ibid.

520 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 February 2018 (Jennifer Hubbard).

521 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

522 Ibid.

should enhance its own gender advisor capacity in the process.[523] In her view, Canada should work to develop its own gender training course that would focus on the full spectrum of operations, and that would consider how gender might affect both a peace mission, and tactical decisions in combat operations.[524] She added that training on gender issues in the security context should "teach people how to assess their operational environment as a social ecosystem, to understand what their presence will be like locally, and understanding the differentiated impacts on women, men, boys and girls locally."[525] As well, she stated that the training program should include a network of experts "to provide periodic updates, feedback, the latest data and research."[526] Finally, she noted the importance of including gender training at training institutions, and stated that ensuring that training is provided from the beginning of military careers would ensure the existence of a basic level of awareness about gender issues.[527]

Ms. von Hlatky also suggested that Canada should "support the development of a comprehensive strategy to incorporate gender into NATO policies," and ensure the existence of a reporting mechanism for all assistant secretary generals.[528] She explained that this approach could help to guarantee that gender issues are considered in all of NATO's activities and the portfolios under the responsibility of the assistant secretaries general.[529] According to her, this systematic approach would be more sustainable over the long term because it ensures that "gender analysis is carried out by the organization as a whole, not just by the gender advisors or the Women, Peace and Security office."[530]

## 11. NATO's Unity and Interoperability

Despite concerns about NATO's solidarity, all of the Committee's witnesses emphasized the importance of NATO's unity. As Ambassador Buck stated, "[t]he alliance's strongest asset is unity. It's the centre of gravity for the alliance."[531] NATO's consensus-based decision making and its Article 5 commitment that an attack on one ally is considered an

523 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 November 2017 (Stéfanie von Hlatky).

524 Ibid.

525 Ibid.

526 Ibid.

527 Ibid.

528 Ibid.

529 Ibid.

530 Ibid.

531 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

attack on all allies are the foundational principles that hold NATO together. Mr. Latkovskis said that, without this trust between allies, "the whole security system collapses."[532]

Some witnesses suggested that disagreements among allies and perceived challenges to NATO's values serve to further reinforce NATO's existence and purpose. Ambassador Buck mentioned that, when NATO allies stray from democratic values, NATO can "keep allies in the tent, and try to reinforce and re-instill those values."[533] She highlighted that "there have been governments inside the alliance ruled by juntas," and that NATO was able to overcome these crises and remain united.[534] Vice-Admiral (Retired) Davidson added that "the alliance is better with [these challenges]," and proposed that Canada should play a valuable role in "being a broker and continuing to bring various elements of the alliance together."[535]

Although a number of witnesses expressed concerns about domestic developments in Turkey and the country's military engagement in Syria, they underscored the importance of keeping Turkey in NATO. Ambassador Buck, Mr. Graham and Mr. Fadden agreed that Turkey's geography and status as a Muslim country make it an invaluable member of NATO.[536] Several witnesses emphasized that the best approach to deal with countries that appear to be falling out of line with NATO's values, whether it be Turkey or another country, is engagement. Mr. Davidson stated:

> It's a dangerous path to go on to start a conversation such that, 'if you don't share our values, then maybe it's time that you don't belong in the alliance.' That's a very dangerous path, because at what level do countries start to worry that, when Russia or somebody else starts to do something, we couldn't all just decide, well, Estonia does not really share our values, so maybe they ought not to be part of the alliance?[537]

Mr. Fadden shared this concern, noting that "[t]he gleam in Putin's eyes is that he can somehow drag them back from NATO into his orbit."[538]

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532 NDDN, *Evidence*, 1st Session, 42nd Parliament, 13 February 2018 (Airnars Latkovskis).

533 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck).

534 Ibid.

535 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

536 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (The Honourable Bill Graham).

537 NDDN, *Evidence*, 1st Session, 42nd Parliament, 27 February 2018 (Vice-Admiral (Retired) Robert Davidson).

538 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Richard Fadden).

Witnesses encouraged individual NATO countries to use discreet diplomatic channels to express their concerns when a country appears to be falling out of line with NATO's values. Mr. Fadden proposed that, to avoid Turkey getting closer to Russia, Canada and other NATO countries should increase their engagement with Turkey and treat the country "like a significant power."[539] Mr. Byers and Ms. Charron identified diplomatic and economic pressures as a means to bring those countries back in line with NATO values, warning that discussions about removing a NATO ally from the alliance would be counter-productive and would likely only weaken NATO.[540]

Several witnesses highlighted the value of the NATO Parliamentary Assembly as a forum for engaging diplomatically and voicing concerns about developments in individual NATO countries. Mr. Hobbs noted the "free-ranging" discussions that take place at the NATO Parliamentary Assembly, and suggested that parliamentarians are freer to criticize an ally than an ambassador would in the NATO context.[541] He provided the example of the NATO Parliamentary Assembly's 2016 annual meeting in Istanbul, where parliamentarians from various NATO countries expressed their concerns about developments in Turkey and engaged in frank discussions and exchanges of views.[542]

Witnesses reiterated the importance of maintaining interoperability among NATO allies, and characterized interoperability as critical to NATO.[543] In noting that interoperability is key to NATO's efficiency and effectiveness Mr. Baines explained:

> The continual demonstration of interoperability is one of the jewels of NATO. The fact is that we have 29 nations speaking different languages, utilizing different measurement systems, very often dealing with traditionally different epaulets and symbols for their military that have all come together and can now logistically make things happen, move items from one side of the earth to another, and be able to work cohesively.... That has always been one of the real show horses of NATO.[544]

NATO allies' use of military systems and technologies that are interoperable with one another facilitate military operations. Ms. Meharg explained that interoperability means that "we are mostly speaking the same language and using the same systems and ways

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539 Ibid.

540 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Michael Byers); and NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 March 2018 (Andrea Charron).

541 NDDN, *Evidence*, 1st Session, 42nd Parliament, 8 February 2018 (David Hobbs).

542 Ibid.

543 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Commodore Richard Feltham).

544 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Baines).

of doing operations," which is beneficial for NATO's efficiency and effectiveness. According to her, forces deployed on UN missions or coalitions of the willing, for example, do not have the same degree of integration and interoperability as NATO's forces on operations.[545]

Commodore Feltham explained that "[t]he key to any successful operation is communication." In his view, "[i]f we can't interoperate with our allies, it gets harder and harder to communicate with and control our military forces."[546] In describing training as important for achieving interoperability, Major-General Meinzinger said that "[t]here are always challenges in integrating with teams you haven't trained with," which is why Canada and its NATO allies "invest so heavily in the training."[547] In the view of Major-General Seymour, the more that NATO allies train together, the better they get and the more successful they are during operations. He also characterized interoperability as important, including in such areas as procurement, procedures, tactics, documentation and people. He highlighted that the Canadian-led NATO multinational battlegroup in Latvia brings together seven NATO allies. According to him, "[t]here are different languages to overcome, and different tactics, techniques, and procedures."[548] Major-General Joyce used NATO's operations in Libya in 2011 to illustrate the importance of interoperability. At that time, he was commanding the Canadian air task force that participated in NATO's air strikes against Libya. He said that "[w]e arrived, and our fighters arrived, and 48 hours later they were operating over Libya" with other NATO allies. In his view, the situation in Libya is a "very tangible example of how important interoperability is within the NATO context." He stressed that "interoperability is absolutely key" to the success of NATO's operations.[549]

For decades, Canada has supported NATO's interoperability. According to Mr. McRae, only seven or eight NATO countries are as interoperable with NATO forces as Canada on air, land and sea. He explained:

> We've participated ... in ... every NATO operation, whether it's sea, air, or land.... There have been a lot of operations since the end of the Cold War. We're interoperable with the U.S., and that's what counts.... There's really only a handful of countries at NATO that can make that claim. Often it's the same countries doing the same missions: [Canada], the U.S., the U.K., France, the Netherlands, Belgium, on occasion. Countries

545 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg).

546 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Commodore Richard Feltham).

547 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

548 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour).

549 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General Derek Joyce).

> like Germany often have the capability but politically are reluctant to participate; ditto, occasionally, the Italians and Spanish. The other countries of NATO, especially the newer countries, the newer members [of NATO], clearly don't have the range of capabilities that would permit broad-spectrum participation in all operations in NATO. The list is fairly short.[550]

In sharing that view, Mr. Rouleau said that "[t]hose seven or eight countries have the equipment, have the ability, have the knowledge to operate, and really, to come together with the rest of the nations."[551]

Moreover, Canada and the United States – as neighbours, friends and allies – have developed a special defence relationship in North America that includes a degree of integration and interoperability between their armed forces that is unmatched in the world today. Examples of this integration include the full integration of American and Canadian air assets through NORAD, and the ability of Canadian frigates to integrate and replace American warships in U.S. Navy carrier battlegroups.[552]

Improving interoperability with partners and allies, including NATO, is a priority of Canada's new defence policy.[553] In explaining how interoperability with NATO allies is expected to be enhanced, Major-General Meinzinger stated:

> Canada will pursue leadership roles where able, and will prioritize interoperability in its planning and capability development to ensure seamless co-operation with allies and partners, particularly those within NATO. Militarily, NATO is a key enabler for the Canadian Armed Forces' interoperability with allies.... The Canadian Armed Forces will continue to deploy as part of an alliance or coalition, often with little warning. The goal is therefore to have forces interoperable from the moment they deploy on training or on operations. This, of course, will reduce the work-up time required for forces to be truly employable, regardless of the operational environment. Interoperability, which is the ability to act together coherently, is in our parlance a force multiplier in improving the overall efficiency and effectiveness of the force. Canada also leverages [its] participation in NATO to maximize our information-sharing opportunities and more generally, to strengthen [its] bilateral relations with [its] allies. There exist many collaborative programs, committees, and processes that underpin NATO's focus on interoperability as a cornerstone of the alliance.[554]

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550 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

551 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau).

552 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Vice-Admiral (Retired) Denis Rouleau); NDDN, *Evidence*, 1st Session, 42nd Parliament, 22 November 2017 (Andrea Charron); NDDN, *Canada and the Defence of North America: NORAD and Aerial Readiness*, 1st Session, 42nd Parliament, September 2016; and NDDN, *The Readiness of Canada's Naval Forces*, 1st Session, 42nd Parliament, June 2017.

553 DND, *Strong Secure Engaged: Canada's Defence Policy*, p. 61.

554 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

Witnesses also highlighted interoperability in information technology and cyber defence capabilities as being of prime importance and an area of continued improvement.[555]

## 12. Canada and NATO Centres of Excellence

According to some of the Committee's witnesses, Canada should participate more actively in – and contribute greater resources to – NATO-accredited centres of excellence, of which there are currently about 25. These centres are located across Europe and throughout the United States; none of the centres is located in Canada. The centres cover a wide range of specialized areas, including civil–military relations, military medicine, strategic communications and cyber defence.[556] According to Major-General Meinzinger, "[t]hese centres cluster together academics, researchers, and military members," and are "a great incubator for sharing ideas, discussing risks, and looking forward 20 years." He also said that "work will no doubt infuse itself into the way NATO may approach certain challenges moving forward."[557]

Witnesses expressed concern about Canada's lack of active participation in some of NATO's centres of excellence, as well as in the centres of excellence of certain partner countries. For example, Canada is not a participant in the newly established European Centre of Excellence for Countering Hybrid Threats, which was established in 2017 in Helsinki, Finland.[558] Representatives of more than a dozen NATO and EU countries are participating in that new centre.[559] Witnesses were surprised about Canada's lack of

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555 NDDN, *Evidence*, 1st Session, 42nd Parliament, 30 January 2018 (Len Bastien and Commodore Richard Feltham).

556 This includes the following NATO-accredited centres of excellence: Analysis and Simulation for Air Operations (Lyon, France); Civil-Military Cooperation (The Hague, The Netherlands); Cold Weather Operations (Bodo, Norway); Combined Joint Operations from the Sea (Norfolk, United States); Command and Control (Utrecht, The Netherlands); Cooperative Cyber Defence (Tallinn, Estonia); Counter-Improvised Explosive Devices (Madrid, Spain); Counter Intelligence (Krakow, Poland); Crisis Management and Disaster Response (Sofia, Bulgaria); Defence Against Terrorism (Ankara, Turkey); Energy Security (Vilnius, Lithuania); Explosive Ordnance Disposal (Trencin, Slovakia); Human Intelligence (Oradea, Romania); Joint Air Power Competence (Kalkar, Germany); Joint Chemical, Biological, Radiological and Nuclear Defence (Vyskov, Czech Republic); Military Engineering (Ingolstadt, Germany); Military Medicine (Budapest, Hungary); Military Police (Bydgoszcz, Poland); Modelling and Simulation (Rome, Italy); Mountain Warfare (Poljce, Slovenia); Naval Mine Warfare (Oostende, Belgium); Operations in Confined and Shallow Waters (Kiel, Germany); Stability Policing (Vicenza, Italy); and Strategic Communications (Riga, Latvia). NATO, "Centres of Excellence."

557 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

558 NATO, "NATO Welcomes Opening of European Centre for Countering Hybrid Threats," 11 April 2017.

559 The participant countries are: Estonia; Finland; France; Germany; Latvia; Lithuania; The Netherlands; Norway; Poland; Spain; Sweden; the United Kingdom; and the United States. See: European Centre of Excellence for Countering Hybrid Threats, "About Us," consulted 8 April 2018.

participation in this new centre, especially considering that the Canadian-led NATO multinational battlegroup in Latvia has already been the target of Russia's hybrid warfare tactics,[560] and some felt that the country should also be involved in other centres of excellence. Mr. McRae believed that Canada should actively participate in the new centre of excellence in Helsinki in view of the growing importance of hybrid warfare for NATO,[561] while Major-General Meinzinger stated that "I think these are entities that ought to be supported. Where we can, and where we see the value, certainly we will intend to do that from a Canadian Armed Forces' perspective."[562]

Some witnesses suggested that Canada could demonstrate leadership within NATO by fostering the establishment of a new centre of excellence on its own soil. A number of witnesses suggested the establishment of a NATO centre of excellence on security sector reform. Mr. Sedra held the view that NATO should become a "global hub and centre of excellence for security sector reform," which he described as "the process to build the capacity of military and public security institutions in fragile, failed, and conflict-affected states." NATO has – in the past – supported military training activities on an ad hoc basis in various regions of the world, ranging from Afghanistan and Iraq to the Balkans and Sub-Saharan Africa. While NATO has gained much experience in the field of security sector reform, more could be done to improve the efforts in that field. Mr. Sedra proposed that NATO should "develop more institutionalized and rapidly deployable security sector reform capacity, which is desperately needed in many unstable countries and regions making difficult transitions.[563] He elaborated by saying:

> NATO could be a home for this institutionalized knowledge in order to really develop some thought leadership capacity in [the area of security sector reform]. What I'm talking about is having standing capacity, and not just on the military side, but ... policing, too, and to look also at building the capacity of intelligence agencies and ... governance agencies that provide oversight. I'm talking about NATO developing a holistic capacity for this.... I can tell you that despite the fact that we view security sector reform as the linchpin for successful post-conflict reconstruction, there is no institution globally that has a mandate on a sufficient scale to develop this capacity, to develop these lessons learned, and to deploy broadly. The UN has units that look at this, but they're small. They're under-resourced. The OSCE [Organization for Security and Co-operation in Europe] has looked at this in the past and has developed methodology

560 See: NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General William Seymour); NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 February 2018 (Kerry Buck); and NDDN's visit to Latvia, 21–23 September 2017.

561 NDDN, *Evidence*, 1st Session, 42nd Parliament, 15 February 2018 (Robert McRae).

562 NDDN, *Evidence*, 1st Session, 42nd Parliament, 1 March 2018 (Major-General A.D. Meinzinger).

563 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

> and best practices, but again, it has largely abandoned efforts. I think NATO could be one institution that could take a leadership role in this.[564]

According to Mr. Sedra, one way for NATO to become a global hub on security sector reform would be to create a centre of excellence specifically devoted to this purpose, with this centre potentially established in Canada. He emphasized that Canadians are "often sought after to provide this type of support in the police, governance, and military realms," and, in his view, this area is one in which "there would be a lot of support among our allies for seeing this type of capacity developed here in Canada."[565] In supporting the idea of such a NATO centre in Canada, Ms. Meharg said:

> I believe that if Canada is going to monetarily support and be a leader with a centre of excellence, it needs to align the capabilities of the Canadian [Armed] Forces in that centre of excellence. We want to choose something that our Canadian [Armed] Forces are able to do, so it's aligned with our allies and within the broader context of the alliance.... Canadian [Armed] Forces personnel ... are what I term humanitarian officers and soldiers. They signed up because they are interested in doing a really good job in helping people improve their lives, elevating humanity. We train them to do so. Reconstruction and stabilization, that stuff that sometimes happens after the bad stuff happens, is an opportunity for us to excel, and if there is no centre of excellence on that particular remit, which there is not, it may be of benefit to align them and have one on that.[566]

Mr. Huebert proposed a NATO centre of excellence in Canada that would focus on Arctic security issues. In his view, establishing an Arctic security centre of excellence in Canada would not only be a sign of Canadian leadership within NATO, but would also be of significant benefit to NATO because of Canada's experience in the Arctic domain.[567]

## CONCLUDING REMARKS

Throughout its history, NATO has been a vital source of peace and stability in Europe, North America and beyond. Today, as threats to global security multiply and become more severe, the strength and unity of NATO is at least as important as it has ever been. Russia's military build-up and aggression along NATO's eastern flank have tested the rules-based international order, while China's economic and military rise is transforming the balance of power in the Asia-Pacific region and the world. Hybrid warfare and cyber-attacks are challenging conventional understandings of conflict and blurring the line

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564 Ibid.

565 Ibid.

566 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Sarah Jane Meharg).

567 NDDN, *Evidence*, 1st Session, 42nd Parliament, 6 November 2017 (Robert Huebert).

between war and peace. As well, the world has seen a proliferation of nuclear weapons and the re-emergence of nuclear war as a genuine global threat, while environmental degradation threatens decades of cooperation in the Arctic. All the while, violent conflict continues to destabilize the Middle East and North Africa region, allowing terrorist groups to grow and forcing millions to flee.

Since its inception in 1949, NATO has adapted to major shifts in global security, from the end of the Cold War to the terrorist attacks of 11 September 2001. In 2014, Russia's illegal annexation of Crimea and destabilizing behaviour in Eastern Ukraine marked another fundamental shift for NATO, and prompted NATO's largest reinforcement of collective defence since the end of the Cold War. At the same time, the persistent threat from transnational terrorist groups and the rapid rise of ISIS in Iraq and Syria in 2014 compelled NATO to enhance its efforts to project stability in conflict-prone regions throughout the Middle East and North Africa region, from Afghanistan, to Iraq and Jordan.

As a founding member of NATO, Canada has always placed NATO at the centre of its international security policy. The country has contributed to every NATO mission since 1949, and continues to provide valuable leadership and contributions to NATO's activities and operations. In 2016, Canada's decision to lead a battlegroup in Latvia as part of NATO's eFP solidified the country's reputation as a reliable and committed ally. Several of the Committee's witnesses highlighted that Canada consistently "punches above its weight" in its operational and leadership contributions to NATO.[568] However, as many witnesses noted, in order to allocate adequate resources to defend against global and regional security threats, the Canadian public must be better informed about these threats and the importance of NATO in being able to defend against them. Witnesses advocated increased public education about the threats that Canada faces, and about NATO's value in protecting our security and prosperity.

The Committee repeatedly heard that Canada could do more to support NATO and its allies. Witnesses pointed to improving Canada's procurement process, allocating funds for in researching and developing new technologies, recapitalizing Canada's maritime forces, and investing resources in cyber capabilities as important steps toward improving the CAF's capabilities and – by extension – enhancing Canada's contribution to NATO. Witnesses also suggested that Canada should take on a leadership role within NATO on such issues as promoting the United Nations' Women, Peace and Security agenda, nuclear disarmament, security sector reform and Arctic defence. They also proposed that Canadian defence sector businesses should be provided with more support to

568 NDDN, *Evidence*, 1st Session, 42nd Parliament, 20 November 2017 (Mark Sedra).

facilitate their participation in NATO's procurement projects. In their view, the result would be an increase in Canada's engagement with NATO.

Ultimately, NATO's strength and value lies in the unity of its members. Despite concerns about political dynamics in certain NATO countries, witnesses underscored that NATO's solidarity is its greatest asset. They noted that NATO has overcome challenges in the past, and must continue to do so in the future.

In light of what the Committee heard in Ottawa, and during a visit to Belgium and Latvia, it is recommended:

# LIST OF RECOMMENDATIONS

## NATO's Evolution and Response to Global Threats

**Recommendation 1**

**That the Government of Canada recognize the threat posed to Canada and the values of NATO by states such as Russia, North Korea, Iran and others, and that representatives of the Government of Canada and the Canadian Armed Forces continue to raise issues related to this threat in NATO forums.**

**Recommendation 2**

**That the Government of Canada continue to support Ukraine's reform and democratization efforts that would facilitate its application for NATO membership.**

**Recommendation 3**

**That the Government of Canada support NATO efforts to counter the threat posed by international terrorist groups.**

**Recommendation 4**

**That the Government of Canada closely monitor efforts by the Permanent Structured Cooperation (PESCO) initiative of the European Union and to guard against duplication of efforts to ensure that PESCO does not compete for limited military resources nor undermine NATO operations.**

## Canada and NATO Operations

**Recommendation 5**

**That the Government of Canada continue to play a leadership role in NATO's Enhanced Forward Presence in Latvia as part of Canada and NATO's ongoing commitment to democracy and stability in Europe, in view of Russia's invasion and continued occupation of eastern Ukraine and its illegal annexation of Crimea.**

**Recommendation 6**

**That the Government of Canada continue to invest in research and training development, deployment of personnel in operational headquarters (HQ) and NATO HQ positions.**

### Canada Matters to NATO

**Recommendation 7**

**That Canada participate in the NATO Defence Planning Process (NDPP) and complete an annual capability report clearly defining and measuring capability by defence objective, including personnel numbers, readiness training levels, equipment technology levels and interoperability.**

**Recommendation 8**

**That the Government of Canada re-vitalize and re-establish Canada as a leader in military training within the alliance, including NATO Flying Training, military engineering, communications engineering capabilities, and Women, Peace and Security capabilities.**

### NATO Burden-Sharing and Defence Spending

**Recommendation 9**

**That the Government of Canada take steps to meet the 2014 Wales Summit target, and advocate to NATO the establishment of a contributions measurement system that goes beyond the 2.0% expenditure on Gross Domestic Product (GDP) metric. Further, that the Government of Canada consider taking into account other quantitative and qualitative considerations to contributions from NATO member states.**

### Public Outreach, Educational Awareness and Communications Issues

**Recommendation 10**

**That the Government of Canada engage with colleges, universities, think-tanks, researchers, and industry, to develop an educational platform in addition to supporting the #WeAreNATO campaign and the NATO Association of Canada, to inform Canadians on the history and importance of NATO to Canada's defence policy, in guaranteeing peace and security in the world, and to strengthen our understanding and commitment to this important organization.**

**Recommendation 11**

**That the Government of Canada and the House of Commons continue to support, invest in and recognize the value of the role of Parliamentarians, including in the NATO Parliamentary Assembly, in Canada`s NATO relationship.**

**Recommendation 12**

**That the Government of Canada publish an annual report on global threats and national defence.**

NATO's Procurement and Defence Industry Issues

**Recommendation 13**

**That the Government of Canada invest in accountability structures, management frameworks and performance based contracts with strong incentives and disincentives to ensure timely, efficient and effective military procurement, perhaps reviewing the overall government defence procurement structure and considering the establishment of a Department of Defence Procurement to meet NATO capability and burden sharing.**

**Recommendation 14**

**That the Government of Canada play a more active and engaged role in facilitating Canadian-owned defence companies to compete on and secure NATO procurement contracts. That the Government of Canada also continue to invest in, and support Canada's delegation to the NATO Industrial Advisory Group (NIAG) to ensure that Canada's defence industry understands the value and importance of NATO procurement.**

**Recommendation 15**

**That the Government of Canada increase the number of National Technical Expert (NATEX) positions, with at least one full-time NATEX in the NATO Communications and Information Agency (NCIA) in Brussels, to assist Canadian industry bids on leading edge NATO contracts and to also ensure that no portion of the process of awarding NATO procurement contracts imposes unfair disadvantages on Canadian businesses.**

**Recommendation 16**

**That the Government of Canada endeavour to provide programming for pilot project launches with the Canadian Armed Forces (CAF) where Canadian leading edge technology can fill national defence and security requirements, such as the former Canadian Innovation Commercialization Program (CICP).**

### NATO Research and Development and Emerging Technologies

**Recommendation 17**

**That the Government of Canada ensure adequate funds are allotted for research and development in order to adapt to the rapid pace of technological change and the increased prevalence of hybrid warfare.**

### NATO and Cyber Defence

**Recommendation 18**

**That the Government of Canada invest further to address our NATO commitment to enhance the electromagnetic pulse and cyber defences of command and control, national infrastructures and networks, and our commitment to the indivisibility of Allied security and collective defence, in accordance with the Enhanced NATO Policy on Cyber Defence adopted in Wales.**

### NATO and the Arctic

**Recommendation 19**

**That the Government of Canada take a leading role within NATO to specialize in Arctic defence and security doctrine and capabilities, and enhance NATO's situational awareness in the Arctic, including joint training and military exercises for NATO members in the Canadian Arctic.**

### NATO and Maritime Security

**Recommendation 20**

**That the Government of Canada respond to calls for NATO members to increase the quantity and quality of their naval fleets and underwater surveillance capabilities in light of ongoing challenges to NATO members at sea by beginning the process of replacing Canada's Victoria Class submarine fleet with new submarines that have under-ice capabilities and that the CAF increase the size of the fleet in order to enhance our Arctic and North Atlantic defence preparedness.**

### Nuclear Proliferation and Nuclear Disarmament

**Recommendation 21**

**That the Government of Canada take a leadership role within NATO in beginning the work necessary for achieving the NATO goal of creating the conditions for a world free of nuclear weapons. That this initiative be undertaken on an urgent basis in view of the increasing threat of nuclear conflict flowing from the renewed**

**risk of nuclear proliferation, the deployment of so-called tactical nuclear weapons, and changes in nuclear doctrines regarding lowering the threshold for first use of nuclear weapons by Russia and the US.**

### NATO and the Space Domain

**Recommendation 22**

**That the Government of Canada support NATO efforts to draft a space strategy to include treaties and codes of conduct governing military attacks on space assets and to reduce debris and congestion in space orbits.**

### Women, Peace, and Security

**Recommendation 23**

**That the Government of Canada support increased participation of women in NATO by becoming a leader in gender-based operational training; by reporting annually on Canada's progress on Women, Peace and Security within its military; by working with NATO to further develop gender-based policies and procedures; and by hosting an international integrated military and civilian conference on Women, Peace and Security.**

**Recommendation 24**

**That the Government of Canada support the agenda of the NATO Secretary General's Special Representative for Women, Peace, and Security (WPS) and the commitment of additional resources to that agenda including measures to promote increased recruitment of women in peacekeeping operations both domestically and in the militaries of our allies.**

### NATO's Unity and Interoperability

**Recommendation 25**

**That the Government of Canada directly engage with NATO members who may have compromised the security, military interoperability, and values of NATO, and help support them in upholding the shared NATO principles of protecting human rights, respecting the rule of law, promoting democracy, and protecting civilian populations.**

### Canada and NATO Centres of Excellence

**Recommendation 26**

**That the Government of Canada indicate to the Steering Board of the European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE) that Canada wishes to participate in the Hybrid CoE.**

**Recommendation 27**

**That the Government of Canada establish a NATO Centre of Excellence in the area of security sector reform as this would allow Canada to offer the Alliance a standing capacity for military and police training to be used for conflict prevention and/or successful post-conflict reconstruction efforts.**

# APPENDIX A
# NORTH ATLANTIC TREATY

**Washington D.C., 4 April 1949**

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage and civilisation of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defence and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

**Article 1**

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international dispute in which they may be involved by peaceful means in such a manner that international peace and security and justice are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

**Article 2**

The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

### Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

### Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.

### Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognised by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

### Article 6[1]

For the purpose of Article 5, an armed attack on one or more of the Parties is deemed to include an armed attack:

- on the territory of any of the Parties in Europe or North America, on the Algerian Departments of France[2], on the territory of Turkey or on the Islands under the jurisdiction of any of the Parties in the North Atlantic area north of the Tropic of Cancer;
- on the forces, vessels, or aircraft of any of the Parties, when in or over these territories or any other area in Europe in which occupation forces of any of the Parties were stationed on the date when the Treaty entered into force or the Mediterranean Sea or the North Atlantic area north of the Tropic of Cancer.

**Article 7**

This Treaty does not affect, and shall not be interpreted as affecting in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

**Article 8**

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third State is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

**Article 9**

The Parties hereby establish a Council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The Council shall be so organised as to be able to meet promptly at any time. The Council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defence committee which shall recommend measures for the implementation of Articles 3 and 5.

**Article 10**

The Parties may, by unanimous agreement, invite any other European State in a position to further the principles of this Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any State so invited may become a Party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

**Article 11**

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the States which have ratified it as soon as the ratifications of the majority of the signatories, including the ratifications of Belgium, Canada, France, Luxembourg, the Netherlands, the United Kingdom and the United States, have been deposited and shall come into effect with respect to other States on the date of the deposit of their ratifications.[3]

**Article 12**

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

**Article 13**

After the Treaty has been in force for twenty years, any Party may cease to be a Party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

**Article 14**

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies will be transmitted by that Government to the Governments of other signatories.

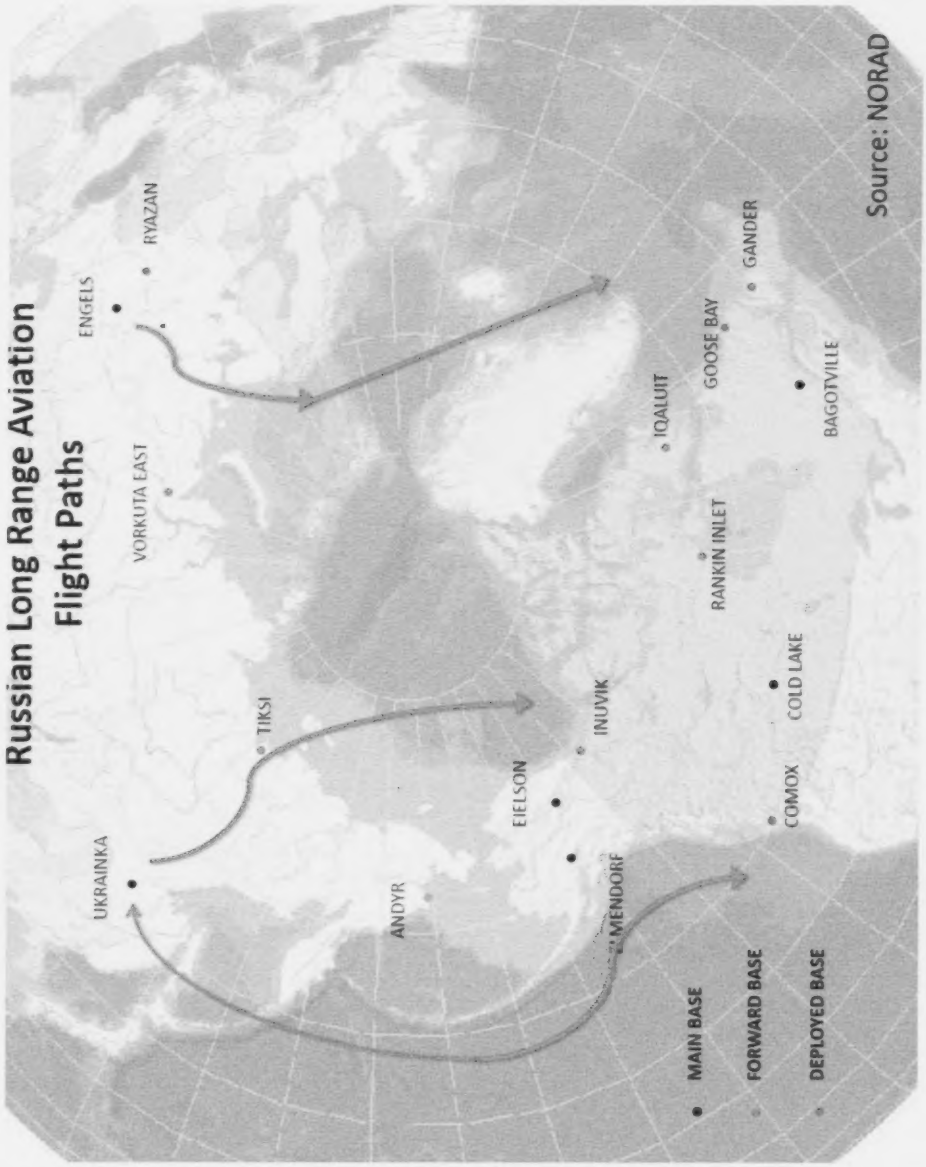
1. The definition of the territories to which Article 5 applies was revised by Article 2 of the Protocol to the North Atlantic Treaty on the accession of Greece and Turkey signed on 22 October 1951.
2. On January 16, 1963, the North Atlantic Council noted that insofar as the former Algerian Departments of France were concerned, the relevant clauses of this Treaty had become inapplicable as from July 3, 1962.
3. The Treaty came into force on 24 August 1949, after the deposition of the ratifications of all signatory states.

Source: North Atlantic Treaty Organization (NATO), "The North Atlantic Treaty," 4 April 1949.

# APPENDIX B
# NATO COUNTRIES

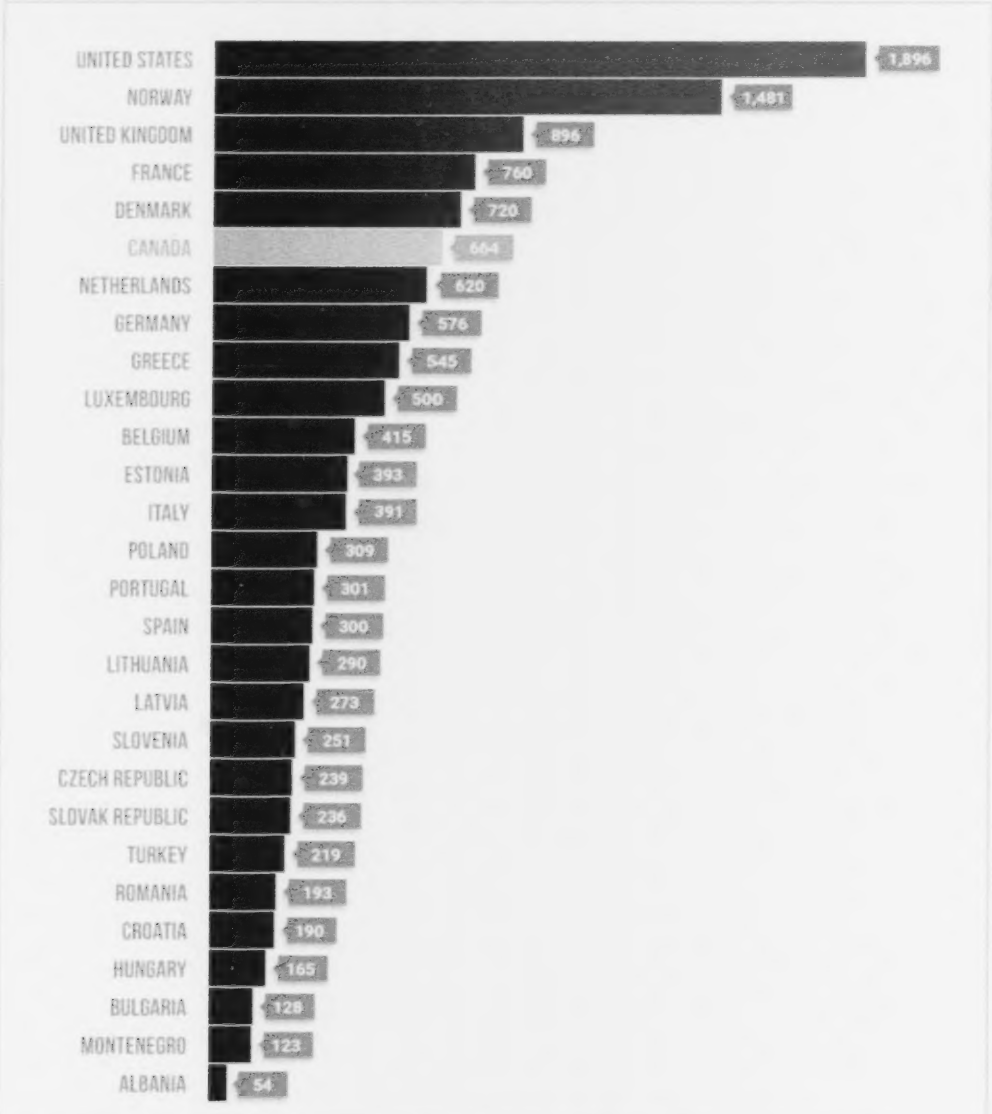
Source: Map prepared by the Library of Parliament, Ottawa, 2018, using data from NATO, "NATO Countries," 26 March 2018.

# APPENDIX C
# RUSSIAN LONG RANGE AVIATION FLIGHT PATHS



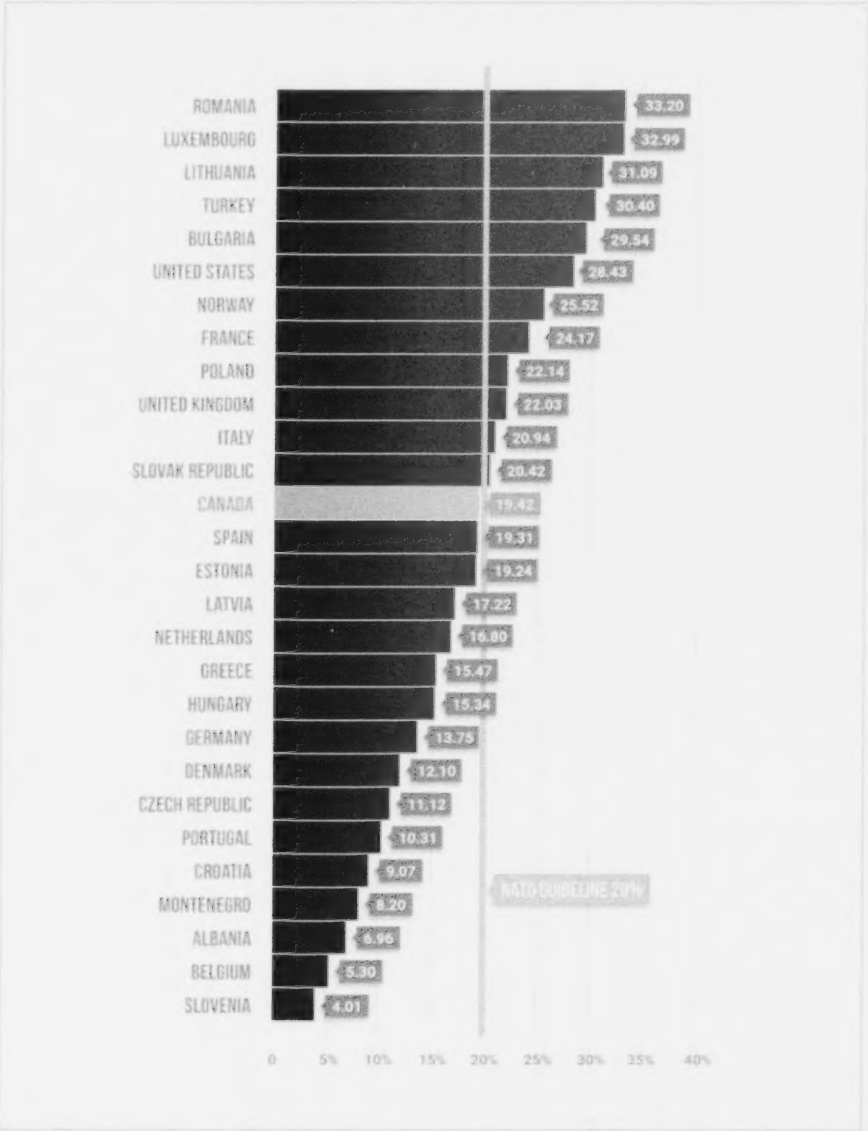

Source: Map distributed to NDDN members by Dr. James Fergusson, 8 February 2018.

# APPENDIX D: DEFENCE EXPENDITURE PER CAPITA (U.S. DOLLARS), 2017



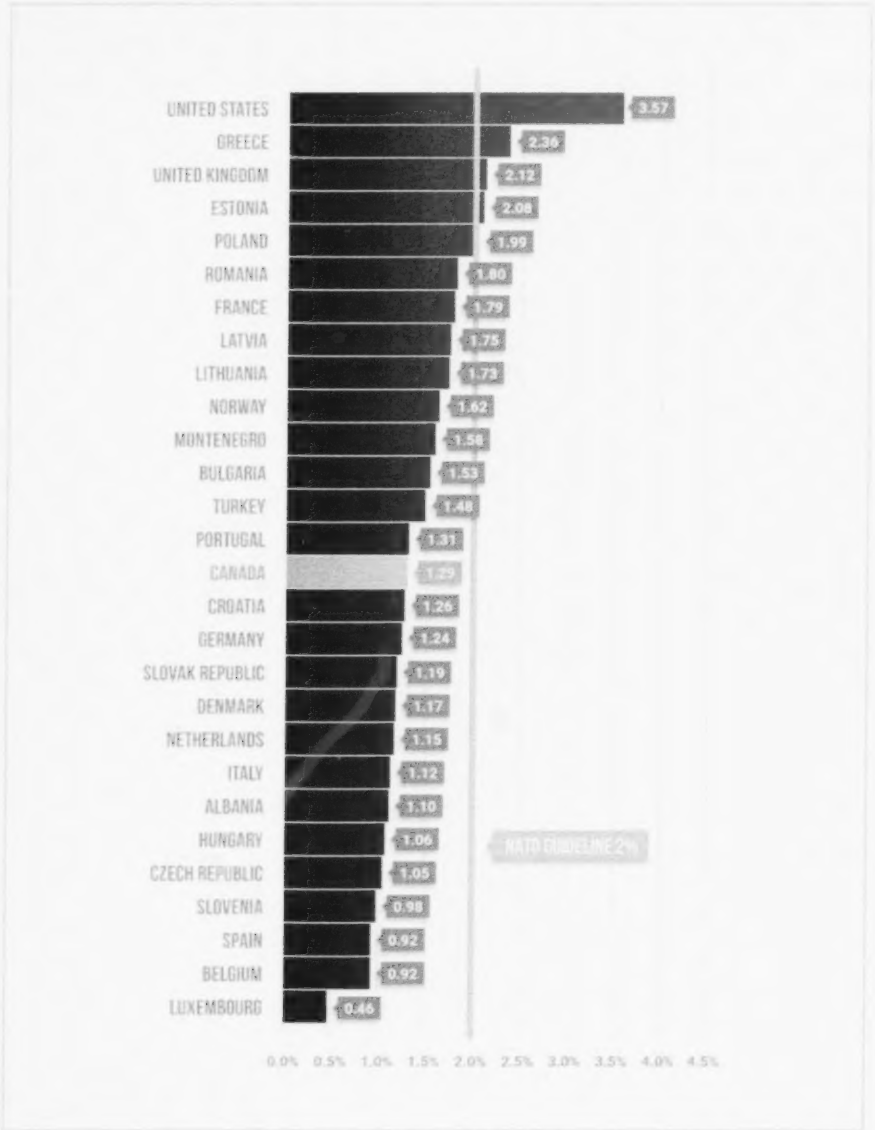

Source: Graphic prepared by the Library of Parliament, Ottawa, 2018, using data from NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.

# APPENDIX E: EQUIPMENT EXPENDITURE AS A SHARE OF DEFENCE EXPENDITURE (%), 2017




Source: Graphic prepared by the Library of Parliament, Ottawa, 2018, using data from NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.

# APPENDIX F: DEFENCE EXPENDITURE AS A SHARE OF GDP (%), 2017




**Source:** **Graphic prepared by the Library of Parliament, Ottawa, 2018, using data from NATO, "Defence Expenditure of NATO Countries (2010-2017)," 15 March 2018.**

# APPENDIX G
# CANADIAN DEFENCE EXPENDITURE AS A SHARE OF GDP (%) SINCE 1950

| Year | Percentage (%) |
|---|---|
| 1950 | 2.4 |
| 1951 | 4.7 |
| 1952 | 6.8 |
| 1953 | 7.4 |
| 1954 | 6.9 |
| 1955 | 6.2 |
| 1956 | 5.7 |
| 1957 | 5.3 |
| 1958 | 4.9 |
| 1959 | 4.4 |
| 1960 | 4.2 |
| 1961 | 4.1 |
| 1962 | 4.0 |
| 1963 | 3.6 |
| 1964 | 3.4 |
| 1965 | 2.9 |
| 1966 | 2.7 |
| 1967 | 2.7 |
| 1968 | 2.5 |
| 1969 | 2.3 |
| 1970 | 2.2 |
| 1971 | 2.1 |
| 1972 | 2.0 |
| 1973 | 1.8 |

| Year | Percentage (%) |
|---|---|
| 1974 | 1.8 |
| 1975 | 1.9 |
| 1976 | 1.8 |
| 1977 | 1.8 |
| 1978 | 1.8 |
| 1979 | 1.7 |
| 1980 | 1.8 |
| 1981 | 1.7 |
| 1982 | 2.0 |
| 1983 | 2.1 |
| 1984 | 2.1 |
| 1985 | 2.1 |
| 1986 | 2.1 |
| 1987 | 2.1 |
| 1988 | 2.0 |
| 1989 | 1.9 |
| 1990 | 2.0 |
| 1991 | 1.9 |
| 1992 | 1.9 |
| 1993 | 1.8 |
| 1994 | 1.7 |
| 1995 | 1.6 |
| 1996 | 1.4 |
| 1997 | 1.2 |
| 1998 | 1.3 |
| 1999 | 1.2 |
| 2000 | 1.1 |
| 2001 | 1.1 |
| 2002 | 1.1 |
| 2003 | 1.1 |

| Year | Percentage (%) |
|---|---|
| 2004 | 1.1 |
| 2005 | 1.1 |
| 2006 | 1.1 |
| 2007 | 1.2 |
| 2008 | 1.2 |
| 2009 | 1.4 |
| 2010 | 1.2 |
| 2011 | 1.2 |
| 2012 | 1.1 |
| 2013 | 1.0 |
| 2014 | 1.0 |
| 2015 | 1.2 |
| 2016 | 1.2 |
| 2017 | 1.3 |

*Source:* Stockholm International Peace Research Institute (SIPRI), "SIPRI Military Expenditure Database: Data for all Countries 1949-2017," 2018.

# APPENDIX H
# LIST OF WITNESSES

| Organizations and Individuals | Date | Meeting |
|---|---|---|
| **Department of Foreign Affairs, Trade and Development** | 2017/06/15 | 55 |
| Mark Gwozdecky<br>Assistant Deputy Minister, International Security and Political Affairs | | |
| Kevin Rex<br>Director, Eastern Europe and Eurasia | | |
| **Department of National Defence** | | |
| Major-General A. D. Meinzinger<br>Director of Staff, Strategic Joint Staff | | |
| **As individuals** | 2017/10/04 | 60 |
| Marcus Kolga<br>Senior Fellow, MacDonald-Laurier Institute | | |
| Andrew Rasiulis<br>Fellow, Canadian Global Affairs Institute | | |
| **As an individual** | 2017/11/01 | 67 |
| Walter Dorn<br>Professor, Department of Defence Studies, Royal Military College of Canada | | |
| **As individuals** | 2017/11/06 | 68 |
| Elisha Evelyn Louise Cooper<br>Student, Simon Fraser University | | |
| Robert Huebert<br>Fellow, Canadian Global Affairs Institute | | |
| Peter James Mckenzie Rautenbach<br>Student, Simon Fraser University | | |
| Jazlyn Melnychuk<br>Student, Simon Fraser University | | |
| Alexander Moens<br>Chair, Political Science Department, Simon Fraser University | | |
| Samuel Thiak<br>Student, Simon Fraser University | | |

| Organizations and Individuals | Date | Meeting |
|---|---|---|
| **NATO Association of Canada** | 2017/11/06 | 68 |
| Robert Baines<br>President and Chief Executive Officer | | |
| **As individuals** | 2017/11/08 | 69 |
| Yves Brodeur<br>Fellow, Canadian Global Affairs Institute | | |
| Julian Lindley-French<br>Fellow, Canadian Global Affairs Institute | | |
| Stéfanie von Hlatky<br>Associate Professor and Director, Centre for International and Defence Policy, Queen's University | | |
| **As individuals** | 2017/11/20 | 70 |
| Sarah Jane Meharg<br>Adjunct Professor, Department of Political Science, Royal Military College of Canada | | |
| Mark Sedra<br>President, Canadian International Council | | |
| **As individuals** | 2017/11/22 | 71 |
| Michael Byers<br>Professor, Department of Political Science, University of British Columbia | | |
| Andrea Charron<br>Director, Centre for Security Intelligence, University of Manitoba | | |
| **Rideau Institute on International Affairs** | | |
| Peggy Mason<br>President | | |
| **Department of National Defence** | 2018/01/30 | 77 |
| Len Bastien<br>Defence Chief Information Officer and Assistant Deputy Minister (Information Management) | | |
| Commodore Richard Feltham<br>Director General, Cyberspace | | |
| **Department of National Defence** | 2018/02/01 | 78 |
| Patrick Finn<br>Assistant Deputy Minister (Materiel) | | |
| Jennifer Hubbard<br>Director General, International and Industry Programs | | |

| Organizations and Individuals | Date | Meeting |
|---|---|---|
| **Department of Foreign Affairs, Trade and Development** | 2018/02/06 | 79 |
| Kerry Buck<br>Ambassador, Canadian Permanent Representative to NATO | | |
| **Department of National Defence** | | |
| Lieutenant-General Marquis Hainse<br>Canadian Military Representative to NATO | | |
| Lieutenant-General Christine T. Whitecross<br>Commandant, NATO Defense College | | |
| **As an individual** | 2018/02/08 | 80 |
| James Fergusson<br>Professor, Centre for Defence and Security Studies, Department of Political Studies, University of Manitoba | | |
| **NATO Parliamentary Assembly** | | |
| David Hobbs<br>Secretary General | | |
| **As an individual** | | |
| The Honourable Joseph A. Day<br>Senator | | |
| **As an individual** | 2018/02/13 | 81 |
| Ainars Latkovskis<br>Chair, Defence, Interior and Anti-corruption Commission, Saeima, Riga, Latvia | | |
| **Embassy of the Republic of Latvia** | | |
| Karlis Eihenbaums<br>Ambassador of the Republic of Latvia to Canada | | |
| Agris Ozolinš<br>Defence, Military, Naval and Air Attaché in Canada | | |
| **As individuals** | 2018/02/15 | 82 |
| Richard B. Fadden<br>Former National Security Advisor to the Prime Minister | | |
| Robert McRae<br>Former Canadian Ambassador and Permanent Representative to NATO | | |
| Vice-Admiral (Retired) Denis Rouleau<br>Former Military Representative to NATO, and former Vice Chief of Defence Staff of Canada, Royal Canadian Navy | | |

| Organizations and Individuals | Date | Meeting |
|---|---|---|
| **As individuals** | 2018/02/27 | 83 |
| Vice-Admiral (Retired)Robert Davidson<br>Former Military Representative to NATO, Royal Canadian Navy | | |
| The Honourable Bill Graham<br>Former Minister of National Defence and Former Minister of Foreign Affairs | | |
| **Department of National Defence** | 2018/03/01 | 85 |
| Major-General Derek Joyce<br>Director General, International Security Policy | | |
| Major-General A. D. Meinzinger<br>Director of Staff, Strategic Joint Staff | | |
| Major-General William F. Seymour<br>Chief of Staff Operations, Canadian Joint Operations Command | | |
| **As individuals** | 2018/03/22 | 87 |
| Martin Hill<br>Honorary Chairman, NATO Industrial Advisory Group | | |
| Janet Thorsteinson<br>Head of the Canadian Delegation, NATO Industrial Advisory Group | | |
| Daniel Verreault<br>Director for Canada, Military Systems Operation, GE Aviation | | |
| **As individuals** | 2018/03/27 | 88 |
| Lieutenant-General (Retired) Charles Bouchard<br>Former NATO Commander of Operation UNIFIED PROTECTOR | | |
| General (Retired) Raymond R. Henault<br>Former Chairman, NATO Military Committee and former Chief of Defence Staff of Canada, Royal Canadian Air Force | | |
| Kevin J. Scheid<br>General Manager, NATO Communications and Information Agency | | |
| **As individuals** | 2018/03/29 | 89 |
| Madeleine Moon<br>Member of Parliament for Bridgend, United Kingdom | | |
| Rafal Rohozinski<br>Consulting Senior Fellow, Future Conflict and Cyber Security, International Institute for Strategic Studies | | |
| **North Atlantic Treaty Organization** | | |
| Jamie Shea<br>Deputy Assistant Secretary General, Emerging Security Challenges Division | | |

# APPENDIX I
# LIST OF BRIEFS

## Organizations and Individuals

Walter Dorn

Edgards Rinkēvičs
Foreign Minister of the Republic of Latvia

Danielle Stodilka

# APPENDIX J
# TRAVEL TO BRUSSELS, BELGIUM
# RIGA, LATVIA
# From September 18 to 26, 2017

| Organizations and Individuals | Date | Location |
|---|---|---|
| Kerry Buck<br>Ambassador, Canadian Permanent Representative to NATO | **2017/09/19** | **Brussels, Belgium** |
| Daniel Costello<br>Ambassador of Canada to the European Union | | |
| Lieutenant-General Marquis Haines<br>Canadian Military Representative to NATO | | |
| Gabor Iklody<br>Director of Crisis Management and Planning Directorate | | |
| Pedro Serrano<br>Secretary General for Common Security and Defence Policy and Crisis Response | | |
| Brigadier-General Gregory Smith<br>National Military Representative | | |
| James Appathurai<br>NATO Deputy Assistant Secretary General for Political Affairs and Security Policy | **2017/09/20** | **Brussels, Belgium** |
| Heiner Brauss<br>NATO Assistant Secretary General for Defence Policy and Planning | | |
| Rose Gottemoeller<br>NATO Deputy Secretary General | | |
| **Allied Permanent Representatives:** | | |
| H.E. Indulis Bērzkiņš<br>Permanent Representative of Latvia to NATO | | |
| Andrej Dernovšček<br>Deputy Permanent Representative of Slovenia to NATO | | |

| Organizations and Individuals | Date | Location |
|---|---|---|
| **Allied Permanent Representatives:** | **2017/09/20** | **Brussels, Belgium** |
| Soren Ducaro<br>NATO Assistant Secretary General for Emerging Security Challenges | | |
| H.E. Hélène Duchêne<br>Permanent Representative of France to NATO | | |
| H.E. Knut Hauge<br>Permanent Representative of Norway to NATO | | |
| H.E. Marjanne De Kwaasteniet<br>Permanent Representative of the Netherlands to NATO | | |
| H.E. Sarah Macintosh<br>Permanent Representative of the United Kingdom to NATO | | |
| H.E. Stelian Stoian<br>Permanent Representative of Romania to NATO | | |
| Heiko Thoms<br>Deputy Permanent Representative of Germany to NATO | | |
| **European External Action Service:** | | |
| Richard Tibbels<br>Head of Division, United States and Canada Division | | |
| Michal Adamowicz<br>United States and Canada Division | | |
| Cristian Contan<br>Eastern Partnership, bilateral (Ukraine) | | |
| Arnout Molenaar<br>Crisis Management and Planning Directorate (CMPD) | | |
| Andras Kos<br>Common Security and Defence Policy (CSDP), Partnerships & Agreements, CMPD | | |
| Jibecke Joensson<br>Common Security and Defence Policy (CSDP), Partnerships & Agreements, CMPD | | |
| Alain Hausser<br>Ambassador of Canada to the Republic of Latvia | **2017/09/21** | **Riga, Latvia** |
| Ojars Kalnins<br>Chairman of Foreign Affairs Committee to the Saeima, Head of Latvia | | |

| Organizations and Individuals | Date | Location |
|---|---|---|
| Colonel Ilmārs Lejiņš<br>Commander of Latvian Land Force | **2017/09/21** | **Riga, Latvia** |
| Colonel Mike Minor<br>Canadian Defence Attaché | | |
| Hasit Thankey<br>Political advisor<br>Task Force Latvia Headquarters<br>Department of National Defence / Canadian Armed Forces | | |
| Lieutenant-Colonel Wade Rutland<br>Commander of eFP Battlegroup | | |
| Lieutenant Zachary Simard<br>Visit Officer, Task Force Latvia | | |
| Zanda Kalniņa-Lukaševica<br>Parliamentary Secretary, Foreign Affairs Ministry | **2017/09/22** | **Riga, Latvia** |
| Ainars Latkovskis<br>Chairman of the Defence, Internal Affairs and Corruption Prevention Committee, and member of the National Security Committee to the Saeima | | |
| Kr. Valdemāra<br>Defence Ministry | | |

# REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant *Minutes of Proceedings* (Meetings Nos. 55, 60, 67, 68, 69, 70, 71, 77, 78, 79, 80, 81, 82, 83, 85, 87, 88, 89, 95, 96, 97, 99, 100, 101, 102) is tabled.

Respectfully submitted,

Stephen Fuhr
Chair